2024 Annual Groundwater Monitoring and Corrective Action Report

Gavin Residual Waste Landfill and Fly Ash Reservoir

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
ERM	Environmental Resources Management, Inc.
FAR	Fly Ash Reservoir
Gavin	Gavin Power, LLC
GWI	Groundwater intercept
H1	First half of year
H2	Second half of year
K	Hydraulic conductivity
Plant	General James M. Gavin Power Plant
RWL	Residual Waste Landfill
SSI	Statistically significant increase
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

On behalf of Gavin Power, LLC (Gavin), Environmental Resources Management, Inc. (ERM) has prepared this 2024 Annual Groundwater Monitoring and Corrective Action Report summarizing groundwater monitoring activities at the Residual Waste Landfill (RWL) and Fly Ash Reservoir (FAR) at the General James M. Gavin Power Plant (Plant) located in Cheshire, Ohio. The RWL and FAR are coal combustion residual (CCR) units at the Plant that are subject to regulation under Title 40, Code of Federal Regulations (CFR), Part 257, Subpart D (40 CFR § 257.50 et seq.), also known as the CCR Rule. In 2021, ERM certified an updated combined monitoring well network for the RWL and FAR, as allowed by 40 CFR 257.91 and as documented in the Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91 (ERM 2021a). Previously, Gavin maintained and monitored two separate (though adjacent) monitoring networks for the RWL and FAR.

This report documents the status of the groundwater monitoring program for the RWL and FAR, which includes the following as required by 40 CFR § 257.90(e):

- A description of the current program status.
- A summary of key actions completed.
- A description of problems encountered, and actions taken to resolve the problems.
- Identification of key activities for the coming year.

The combined RWL and FAR CCR unit groundwater monitoring program began calendar year 2024 in "detection monitoring" program status as defined by 40 CFR § 257.94 and remains in detection monitoring at the end of the 2024 reporting period. Groundwater monitoring in 2024 consisted of two semi-annual monitoring events completed in the spring and fall of 2024, which included groundwater potentiometric elevation measurements and subsequent groundwater sampling. Groundwater potentiometric elevation measurements were used to construct updated groundwater potentiometric surface maps for each of the geologic units monitored.

Groundwater samples were collected for laboratory analysis of CCR Rule Appendix III constituents, and the results were compared to previously calculated upgradient well prediction limits to identify statistically significant increases (SSIs) for downgradient wells. One downgradient monitoring well screened in the Cow Run Sandstone, 9631, exhibited SSIs for certain analytes in 2024. No wells screened in the alluvium or the Morgantown Sandstone exhibited SSIs:

TABLE ES-1: 2024 - NO SSIS IN MORGANTOWN SANDSTONE AND ALLUVIUM DOWNGRADIENT MONITORING WELLS

Well	Date Sampled	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
96157	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
94137	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
9802	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
2016-05	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
2000	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
2018-02	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
2018-04	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
93108	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
9806	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ

Notes: ϕ = No SSI; SSI = statistically significant increase; TDS = total dissolved solids

TABLE ES-2: 2024 SSIS IN COW RUN SANDSTONE DOWNGRADIENT MONITORING WELLS

Well	Date Sampled	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
2016-06	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
2018-01[1]	Mar-2024	NS	NS	NS	NS	NS	NS	NS
	Sep/Oct-2024	NS	NS	NS	NS	NS	NS	NS
2018-03	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
94136	Mar-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
	Sep/Oct-2024	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
9631	Mar-2024	ϕ	X	X	ϕ	ϕ	ϕ	X[2]
	Sep/Oct-2024	ϕ	X	X	ϕ	ϕ	ϕ	X

Notes: ϕ = no SSI; X = SSI; SSI = statistically significant increase; NS = not sampled, TDS = total dissolved solids

[1] Well 2018-01 was abandoned in 2022. A replacement monitoring well is currently being evaluated.

[2] The SSI for TDS was detected only in the field duplicate and not in the normal sample. Despite the lack of an SSI in the normal sample, the SSI for total dissolved solids in the duplicate sample is addressed in the H1 2024 Alternate Source Demonstration Report.

Each identified SSI was evaluated in the corresponding attached Alternate Source Demonstration (ASD) Reports. The ASD reports identify regional background as the source of the SSIs for calcium, chloride, and total dissolved solids [TDS] from monitoring well 9631; therefore, the RWL/FAR groundwater monitoring system remained in detection monitoring at the conclusion of 2024. Accordingly, no remedial actions were selected, initiated, or performed in 2024.

Some of the topics discussed in this report are also addressed in USEPA's November 22, 2022 Final Decision: Denial of Alternative Closure Deadline for General James M. Gavin Plant, Cheshire, Ohio (Final Decision). In other documents, Gavin has explained how the approaches described and documented in this report are consistent with USEPA regulations and guidance as well as with best engineering practices and judgment. Gavin has contested USEPA's findings in the Final Decision from a factual, technical and legal perspective. ERM notes that USEPA's findings and determinations in the Final Decision are the subject of pending litigation.

1. INTRODUCTION

The General James M. Gavin Plant is located in southeast Ohio along the western bank of the Ohio River (Figure 1-1) near Cheshire, Ohio. The Plant contains three regulated CCR units that are subject to regulation under Title 40, Code of Federal Regulations, Part 257, Subpart D (40 CFR 257.50 et seq.), also known as the CCR Rule: the RWL, the FAR, and the Bottom Ash Pond. An updated combined groundwater monitoring system was certified in August 2021 to monitor for potential releases from the RWL and FAR. Previously, Gavin maintained and monitored two separate (though adjacent) groundwater monitoring networks for the RWL and FAR, respectively, but certified the combined monitoring network on 31 August 2021 with completion of the Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91 (ERM 2021a). The Bottom Ash Pond has a separate monitoring system (ERM 2021b) and is not addressed in this report.

This report was produced by ERM on behalf of Gavin Power, LLC and documents the status of the groundwater monitoring program for the RWL/FAR network, including the following as required by 40 CFR § 257.90(e):

- A description of the current program status.
- A summary of key actions completed.
- A description of problems encountered, and actions taken to resolve the problems.
- Identification of key activities for the coming year.

Consistent with the reporting and notification requirements of the CCR Rule, this annual groundwater monitoring report will be posted to the Plant operating record no later than 31 January 2025 (40 CFR § 257.105(h)(1)). Within 30 days of placing the report in the operating record, notification will be made to the Ohio Environmental Protection Agency and the report will be placed on the Plant's publicly accessible internet site (40 CFR §§ 257.106(h)(1), 257.107(h)(1)). Table 1-1 cross-references the reporting requirements under the CCR Rule with the contents of this report.

TABLE 1-1: REGULATORY REQUIREMENT CROSS-REFERENCE TABLE

Regulatory Citation in 40 CFR Part 257, Subpart D	Requirement (paraphrased)	Where Addressed in this Report
§ 257.90(e)(6)	Current status of the groundwater monitoring program.	Section 2
§ 257.90(e)	Summarize key actions completed.	Section 4
§ 257.90(e)	Describe any problems encountered and actions taken to resolve problems.	Section 4.2
§ 257.90(e)	Key activities for upcoming year.	Section 6.0
§ 257.90(e)(1)	Map, aerial image, or diagram of CCR unit and all background and downgradient monitoring wells.	Figure 3-2 and 3-3
§ 257.90(e)(2)	Identification of new monitoring wells installed or abandoned during the preceding year and narrative description.	Section 4.1
§ 257.90(e)(3)	Summary of groundwater data, wells sampled, date sampled, and whether sampling was required under detection or assessment monitoring.	Section 2, 3, 4 and Appendix C and D
§ 257.90(e)(4)	Narrative discussion of any transition between monitoring programs (i.e., from detection to assessment monitoring).	N/A
§ 257.93(c) (via § 257.90(e)(5))	Rate and direction of groundwater flow each time groundwater is sampled.	Section 5.1 and 5.2
§ 257.93(h)	Summary of SSIs over background values for each constituent listed in Appendix III of the CCR Rule.	Section 5.3
§ 257.94(e)(2) (via § 257.90(e)(5))	Any alternate source demonstration reports and related certifications pertaining to a detection monitoring program.	Appendices C and D
§ 257.95(g)(3) (via § 257.90(e)(5))	Any alternate source demonstration reports and related certifications pertaining to an assessment monitoring program.	N/A
§ 257.96(a) (via § 257.90(e)(5))	Any assessment of corrective measures to prevent further releases, remediate any releases, and restore affected area to original conditions, including the related certifications.	N/A
§ 257.97(a) (via § 257.90(e)(5))	Any semi-annual reports describing the progress in selecting and designing a remedy, including the related certifications.	N/A
§ 257.98(e) (via § 257.90(e)(5))	Any notification describing the completion of the selected remedy, including the related certifications.	N/A

2. PROGRAM STATUS § 257.90(E)

The combined RWL and FAR groundwater monitoring system began the 2024 reporting period in detection monitoring. SSIs were identified in one Cow Run Sandstone downgradient monitoring well in the RWL/FAR groundwater monitoring network for calcium, chloride, and TDS in 2024. Regional discharge of naturally occurring brine originating from bedrock was identified as the alternate source for the SSIs. Therefore, the RWL/FAR remains in detection monitoring at the end of the 2024 reporting period.

3. BACKGROUND

3.1 DESCRIPTION OF CCR UNITS

The RWL is approximately 400 acres in size and is located about 1.25 miles northwest of the Plant (Figure 3-1). The CCR material disposed in the RWL is Flue Gas Desulfurization byproduct (consisting of scrubber cake, fly ash, and lime) and other approved materials (water treatment sludge, bottom ash, lime ball mill rejects, coal pulverizer rejects, and sand/moss from the vertical flow wetlands).

The FAR is approximately 300 acres in size and is located about 2.5 miles northwest of the Plant (Figure 3-1). From the mid-1970s until January 1995, fly ash was sluiced to the FAR and the settled CCR materials in the FAR were retained behind the Stingy Run Fly Ash Dam that formed the FAR. The FAR was closed in place, and the closure was completed in 2021. Closure was certified on July 30, 2021.

3.2 GEOLOGY AND HYDROGEOLOGY

The shallowest geologic materials at the FAR/RWL include mine spoil, fill, residual fine-grained soils, and weathered and fractured bedrock (ERM 2021a). Measured hydraulic conductivities for residual fine-grained soils range from 1.03×10^{-8} centimeters per second (cm/sec) to 5.60×10^{-9} cm/sec (AEP, 1993). The shallowest weathered and fractured bedrock present at the Site includes the Pomeroy Sandstone and Coal, the Pittsburgh Sandstone and Coal, the Bellaire Sandstone, and the Connellsville Sandstone units. Although some of these units may be partially or fully saturated in the vicinity of the FAR and RWL, these formations generally are not capable of yielding usable quantities of groundwater, and thus are not considered part of the uppermost aquifer at the FAR/RWL. In the vicinity of the Site, bedrock dips to the southeast at approximately 17 feet/mile (AEP 1993).

The Connellsville Sandstone is still present in portions of the ridges that surround the FAR valley and the RWL. However, the Connellsville Sandstone has been completely eroded in substantial portions of the valley areas of the FAR, especially at the eastern extent of the FAR nearest the current extent of Stingy Run. The Connellsville Sandstone has also been partially or completely eroded in portions of the valley areas underlying the RWL.

Beneath the Connellsville Sandstone are the Clarksburg Red Beds, which is a regionally extensive aquitard (low-permeability rock layer) with a typical thickness of approximately 40 to 50 feet and average hydraulic conductivity values for the formation ranging from 2.1×10^{-7} cm/sec to 7.8×10^{-8} cm/sec (Geosyntec, 2012). The Clarksburg Red Beds hydraulically isolate the shallower bedrock formations from the underlying aquifers. The Clarksburg Red Beds have been observed to be partially or entirely eroded in portions of the valley areas of the FAR and RWL, especially in the eastern extent of the FAR valley areas. However, residual fine-grained soils generated in-situ by the weathering process are generally present in areas where erosion of the Clarksburg Red Beds has occurred. Based upon measured hydraulic conductivity values for the residual fine-grained soils (1.03×10^{-8} cm/sec to 5.60×10^{-9} cm/sec), these soils provide hydraulic separation similar to that provided by the Clarksburg Red Beds. Beneath the Clarksburg Red Beds are the Morgantown

Sandstone and the Cow Run Sandstone. Together these units are interpreted as the uppermost aquifer beneath the RWL and FAR (Geosyntec 2016a; Geosyntec 2016b).

The Morgantown Sandstone is composed of two thin sandstone beds (upper and lower), which are separated by clay shale. The Morgantown Sandstone unit has a total average thickness of approximately 30 feet, and the upper and lower sandstone beds generally range in thickness from approximately three to seven feet. It has been documented through review of historical boring logs that the Morgantown Sandstone has been removed by erosion and is absent in portions of the Stingy Run and Kyger Creek valley areas. The Morgantown was also confirmed to be absent at recent boring 2022-06, which was advanced in 2022 in the Stingy Run valley at the northeastern end of the RWL (ERM 2024). Groundwater migrating east-southeast within the Morgantown Sandstone along the eastern portion of the RWL discharges to the alluvial aquifer located within the Stingy Creek and Kyger Creek valleys. Thus, the alluvial aquifer is also considered part of the uppermost aquifer where the Morgantown Sandstone is absent in these areas.

Below the Morgantown Sandstone is a unit of approximately 60 feet of interbedded claystone/clay shale and non-crystalline limestone layers, collectively known as the Round Knob Shale. These strata extend to the top of the underlying Cow Run Sandstone. Together, the residual fine-grained soils, the Clarksburg Red Beds, and the Round Knob Shale unit provide hydraulic separation from the aquifers underlying the RWL. Though the Clarksburg Red Beds have been partially or entirely eroded in portions of the FAR valley areas, the residual fine-grained soils and deeper Round Knob Shale unit provide hydraulic separation from the aquifers underlying the FAR similar to that provided by the collective lithologic units underlying the RWL.

Below the Round Knob Shale, the Cow Run Sandstone has an average thickness of 30 feet and is characterized regionally as a coarse-grained sandstone and sandy shale. The Cow Run Sandstone unit is continuous under the FAR/RWL and considered the base of the uppermost aquifer. Beneath the Cow Run Sandstone are the Portersville Limestone and the Anderson Clayshale which consist primarily of shale, claystone, and clay shale (Geosyntec 2012). These low permeability formations are interpreted to be the lower hydraulic boundary of the uppermost aquifer.

3.2.1 GROUNDWATER FLOW

The removal of strip mine ponds, installation of groundwater intercept (GWI) drains, and placement of the composite liner under the RWL resulted in decreased recharge to the Morgantown Sandstone and Cow Run Sandstone. The changes during and post-construction were interpreted to result in the decline of potentiometric elevations up to 10 feet, which is similar to observed declines at another AEP residual waste landfill (AEP 1993).

At a regional scale, groundwater within the Morgantown Sandstone and Cow Run Sandstone generally flows from the northwest to the southeast under the FAR and the RWL toward the Ohio River, which is the primary regional discharge boundary for groundwater. At Site-scale, several factors influence groundwater flow directions in the area of the FAR/RWL, including topographic ridges and suppression of infiltration related to the FAR cap and the liner system of the RWL. Ridges along the western, eastern, and southern perimeters of the RWL constitute areas of recharge. Due to removal of strip mine ponds, installation of GWI drains, and placement of the

composite liner, recharge to the center of the RWL has been cut off (AEP, 1993). Recent potentiometric surface maps, including those prepared for this report (See Section 5.1), incorporate not only the information from existing monitoring wells but also consider additional relevant data including original land surface topography, current land surface topography, landfill expansion, remaining recharge areas outside of the landfill expansion, and any effect of the GWIs.

3.2.1.1 GROUNDWATER FLOW ALONG THE WESTERN BOUNDARY OF THE RWL/FAR

To the west of the FAR/RWL, groundwater flows from west to east before joining the overall flow pattern to the southeast. The interpretation of west to east groundwater flow at the western boundary of the RWL is based on specific past and current observations along the western boundary. Groundwater flow maps prepared for the 1993 RWL Permit to Install (AEP, 1993; Figure No. 21) and the 1999 reissued Potentiometric Map of the RWL (AEP Drawing No. 3J of Drawing 12-30729-5) both interpreted groundwater flow from west to east in the Morgantown from a recharge area near wells 94131 toward the historical valley near Pond 1. The potentiometric contours in AEP Figure No. 21 and AEP Drawing No. 3J of Drawing 12-30729-5 also indicate a recharge area farther north, near wells 93102 and 94125, with components of groundwater flow to the southeast and east along the northwestern RWL boundary.

The 1960 USGS topographic map shows a topographic ridge existed east of Turkey Run Road, in the area that would become the western boundary of the RWL (USGS, 1960) The correlation of the potentiometric highs on the 1993 and 1999 figures referenced above and topographic highs suggests the area east of Turkey Run Road was a recharge area prior to the construction of the RWL. The USGS quadrangle notes the presence of historical mines in this area, which is interpreted to enhance recharge along ridges due to mine collapse and the presence of near-vertical fractures. While there has been some modification of the land surface in recent years associated with the westward expansion of the RWL, the current land surface topography still consists of a ridge between the RWL and Turkey Run Road.

The RWL is located on the eastern side of this surface and groundwater ridge, so groundwater flow is interpreted to be from west to east at the western edge of the RWL, consistent with gravity-driven groundwater flow from areas of higher topographic relief to areas of lower topographic relief (Toth, 2009). This west to east flow pattern indicated in the 1993 interpretation is expected to be enhanced due to the reduction in recharge caused by removal of strip mine ponds that had acted as local recharge points within and near the RWL, installation of GWI drains which currently facilitate the movement of shallow groundwater to areas outside the RWL, and installation of the RWL liner which by design inhibits the downward migration of water (AEP, 1993).

Groundwater flow maps provided in the 2018 through 2023 Annual Groundwater Monitoring and Corrective Action Reports consistently show an easterly flow component in the Morgantown and Cow Run (ERM, 2019; ERM, 2020; ERM, 2021c; ERM, 2022; ERM, 2023; ERM, 2024). Justification for this interpretation based on potentiometric elevation data includes the following:

- The potentiometric surface at Morgantown well 2019-02 was higher than nearby Morgantown wells 2019-06 and 9535 in five out of six gauging events conducted between

2020 and 2022. The physical configuration of the wells and the measured piezometric elevations indicate an eastward groundwater flow direction in the Morgantown on the western side of the RWL.

- The potentiometric surface at Cow Run monitoring well 94126 was higher than nearby well 93100 in five out of six gauging events conducted between 2018 and 2019. The physical configuration of the wells and the measured piezometric elevations indicate an eastward groundwater flow direction in the Cow Run on the western side of the RWL.
- A comparison of potentiometric elevation data at wells 94125 and 2019-06 also supports the eastward flow interpretation. Well 94125 was abandoned in 2019 due to RWL expansion and replaced in 2020 by 2019-06, which was located 450 feet to the west, outside the new boundary of waste. The average potentiometric elevation at 94125 from 2013 to 2019 was 589.47 feet above sea level and the average elevation at 2019-06 from 2020 to 2023 is 601.79 feet above sea level. The 12.32-foot difference in average elevation over several years generally supports the interpretation of groundwater flow from west to east.

3.2.1.2 GROUNDWATER FLOW ALONG THE EASTERN BOUNDARY OF THE RWL/FAR

The interpretation of groundwater divides east of the RWL eastern waste boundary and within remnant highwalls (*e.g.*, near wells 94122, MW-15, and MW-16) is based on specific past and current observations along the eastern boundary, similar to those used to assess the groundwater divide along the western boundary of the RWL. The groundwater flow map prepared for the 1993 RWL PTI (AEP, 1993; Figure No. 21) interpreted radial groundwater flow in the Morgantown on the eastern side of the RWL from a recharge area near historic well 94122 and existing well 2001. This radial flow pattern is indicative of a recharge area and existed prior to the construction of the RWL.

The 1960 USGS topographic map shows a topographic ridge existed on the eastern boundary of the RWL at historic well 94122 and existing well 2000 (USGS, 1960). A ridge also ran northwest near the former FAR overflow spillway towards wells 2022-04 and 2022-05. Potentiometric highs were documented both on the eastern side of the future RWL near where the Stacker Pad currently exists, and north of where Pond 1 currently exists (AEP, 1993; Drawing No. 3J of Drawing 12-30729-5). The correlation of the potentiometric highs and topographic highs suggests that these areas were recharge areas prior to the construction of the RWL. The USGS quadrangle notes the presence of historical strip mines in this area, which may have enhanced recharge along ridges due to mine collapse and the presence of near-vertical fractures. While there has been some modification of the land surface in recent years associated with the expansion of the RWL, the current land surface topography still consists of a ridge along the eastern and northeastern sides of the RWL.

The groundwater divide prevents groundwater under the RWL from flowing towards the east in this area. West of the hydraulic divide located on the eastern side of the RWL, groundwater flow is interpreted to be from east to west before turning and flowing to the southeast. This east-to-west flow pattern was and is expected to be enhanced from 1993 interpretations due to the removal of

strip mine ponds, installation of GWI drains, and placement of the composite liner that cut off recharge to the aquifer beneath the RWL (AEP, 1993).

3.2.1.3 REFINEMENT IN INTERPRETATION OF GROUNDWATER FLOW BENEATH THE RWL/FAR

In 2018, federal and state groundwater potentiometric elevation data sets for monitoring wells of the Morgantown and Cow Run were combined to increase spatial resolution and limit uncertainty in the interpretation of groundwater flow direction. This assessment identified: (i) the area of low hydraulic pressure along the axis of the landfill; (ii) groundwater flow from west to east on the western boundary; and (iii) a potentiometric high on the northeastern boundary of the RWL. The updated interpretation of regional groundwater flow in the Morgantown and Cow Run was from northwest to southeast towards the Ohio River. The overall interpretation of groundwater flow in the vicinity of the RWL/FAR is strongly influenced by site geology, pre-construction topography, and site preparation as hydraulic information is no longer able to be obtained from within the RWL due to the liner system or from within the FAR due to the cap.

Generally, the interpretations of groundwater flow under the RWL have been relatively consistent with overall flow towards the southeast. However, recent maps use higher-resolution datasets and differ in some ways from the flow directions and hydraulic features indicated in the 2012 PTI, such as the aforementioned ridge (Geosyntec, 2012). As shown in the 2018 through 2023 Annual GWMCA Reports, existing wells located along the eastern and northeastern boundary include couplet wells 2002 and 2003, and 2022-04 and 2022-05, located in the Morgantown and Cow Run, respectively. At these locations, the Morgantown has a higher potentiometric surface than the Cow Run. These downward gradients demonstrate the presence of recharge areas. Groundwater flow direction maps prepared for the 2018-2023 Annual GWMCA Reports consistently show groundwater mounds and radial flow in the Morgantown in this area.

3.2.2 HYDRAULIC CONDUCTIVITY

Packer tests were completed in 2012 to assess hydraulic conductivity for locations in both the Morgantown and Cow Run Sandstone around the northern portion of the RWL (AEP and Geosyntec 2012). The range of hydraulic conductivity values from the packer tests in the Morgantown and Cow Run are provided in Table 3-1.

TABLE 3-1: ESTIMATED HYDRAULIC CONDUCTIVITY VALUES FOR MORGANTOWN AND COW RUN SANDSTONE

	Average K	**Low K**	**High K**
Morgantown (Geosyntec 2012)	7.18 x 10^{-5} cm/sec	2.2 x 10^{-8} cm/sec	4.6 x 10^{-4} cm/sec
Cow Run (Geosyntec 2012)	2.92 x 10^{-5} cm/sec	5.0 x 10^{-8} cm/sec	5.9 x 10^{-4} cm/sec

Notes: cm/sec = centimeters per second; K = hydraulic conductivity
Geosyntec 2012 values derived from packer tests (10-foot interval) completed in boreholes across mainly the northern part of the RWL.

3.3 MONITORING WELL NETWORK

The RWL and FAR had previously been monitored using separate groundwater monitoring networks as described in the documents: Groundwater Monitoring Network Evaluation—Residual Waste Landfill (Geosyntec 2016a) and the Groundwater Monitoring Network Evaluation—Fly Ash Reservoir (Geosyntec 2016b). Annual Groundwater Monitoring and Corrective Action Reports for 2020 under these separate monitoring systems were prepared for the RWL (ERM 2021c) and FAR (ERM 2021d) and were posted to the Plant operating record on 31 January 2021. Because of the ongoing expansion of the RWL, several monitoring wells along the northern and western RWL boundaries were removed and a portion of the RWL was expanded over the FAR. To account for these changes and provide an adequate groundwater monitoring system for both units, a combined network for the two CCR units was identified and certified in August 2021 (ERM 2021a).

The combined certified network which monitors both the RWL (Figures 3-2) and FAR (Figure 3-3) contains 24 upgradient and 15 downgradient monitoring wells located in the Alluvium, Morgantown Sandstone, and Cow Run Sandstone. The upgradient wells are placed to accurately represent the quality of background groundwater that has not been affected by any potential leakage from the RWL and FAR units, while the downgradient wells in the network are positioned at the downgradient boundary of waste to detect a potential release of CCR constituents from the CCR units into groundwater in the uppermost aquifer. There are additional monitoring wells that are gauged and/or sampled, as required, to provide supplemental information to assist in the interpretation of data received from the certified monitoring network. These wells typically are not located at the downgradient limit of waste or do not reliably yield sufficient water for sampling and are not part of the certified groundwater monitoring network.

In 2022, 14 monitoring wells were installed around the RWL and FAR. Six of these wells were intended to act as replacements for monitoring wells that are included in the certified monitoring network, while the remaining eight were intended as additional groundwater monitoring locations. These wells are currently being sampled and evaluated for addition to the certified monitoring network as background or compliance wells. Monitoring wells installed in 2022 are depicted in Figures 3-2 and 3-3.

Well construction information for the monitoring wells in the certified network and replacement monitoring wells installed in 2022 is presented in Appendix A and boring logs and construction logs are provided in Appendix B.

3.4 PREVIOUS GROUNDWATER MONITORING ACTIVITIES

The RWL and FAR groundwater monitoring wells were initially sampled eight times between August 2016 and July 2017 to establish upgradient well baseline data. Prediction limits were developed using the baseline data and compared to the July 2017 downgradient well results, consistent with the CCR Rule and the Statistical Analysis Plan developed for Gavin (ERM 2017). This comparison resulted in the identification of SSIs for Appendix III analytes in downgradient RWL and FAR wells, which were reported in the 2017 Annual Groundwater Monitoring and Corrective Action Reports for the RWL and FAR (ERM 2018a and ERM 2018b). Based on a detailed review of groundwater elevations and resulting groundwater flow using the certified well network

and additional wells that are used for informational purposes only, the hydraulic positions of monitoring wells within the RWL and FAR networks were reevaluated to consider newly obtained information on hydraulic conditions, including groundwater elevations. A limited number of wells were reclassified as either upgradient or downgradient, and tolerance limits were updated based on the newly defined upgradient dataset. That hydraulic analysis and the derivation of the updated tolerance limits are presented in the first ASD reports for the FAR and RWL (ERM 2018c and ERM 2018d). Such ongoing assessment of groundwater flow is a normal part of developing and refining a conceptual site model as new information is collected, especially at a site with multiple aquifers, variable topography, and a history of underground activities. Subsequent sampling and comparison to background values were completed in 2018, 2019, 2020, 2021, 2022, and 2023.

Following the certification of the combined network, in December 2021, an addendum to the 2020 Annual Groundwater Monitoring and Corrective Action Reports for the FAR and RWL was prepared that evaluated the 2020 data based on the combined groundwater monitoring network (ERM 2021e). While this addendum was not required, it was prepared proactively to identify if the changes to the program resulted in any retroactive SSIs for 2020. Only one SSI was identified when evaluating the data collected in 2020 from the combined monitoring network: boron at monitoring well 2018-01 in March 2020. Although technically not applicable to 2020 (because the combined network was not certified until August 2021), ERM nevertheless prepared an ASD for the boron SSI to determine whether that finding would have changed the monitoring status of either CCR unit. The ASD identified regional brine as the source of boron and identified the use of cement-bentonite grout for well installation as the catalyst for the localized mobilization of previously adsorbed boron. Thus, even if the combined monitoring well network had been in effect in 2020, the RWL and FAR would have remained in detection monitoring at the conclusion of 2020.

4. MONITORING ACTIVITIES

4.1 MONITORING WELL ABANDONMENT

In order to maintain the quality of the wells included in the certified groundwater monitoring network, monitoring wells 2016-03 and 2016-04 were abandoned in 2024, with field activities occurring from February 27, 2024 through March 8, 2024. Downhole camera inspection of the wells and packer testing of well 2016-04 indicated that the wells' integrity was likely compromised. Both wells were decommissioned via the sealing-in-place method. Installation of replacement wells is planned for Q1 2025.

4.2 2024 SAMPLING SUMMARY

Groundwater samples were collected in 2024 as part of the detection monitoring program under 40 CFR § 257.94 and analyzed for the constituents listed in Appendix III to 40 CFR Part 257, Subpart D. Table 4-1 provides a summary of the 2024 first half of year (H1) and second half of year (H2) sample dates and the well gradient designation (upgradient or downgradient) relative to the CCR units. Appendix E provides an analytical summary of samples collected since 2016. Samples were collected by bladder pump, submersible pump, Snap sampler, or Geomon pump. In addition, the samples were not filtered in the field or at the laboratory per the requirement of 40 CFR § 257.93(i) and were managed under chain-of-custody procedures from the field to the laboratory.

Some monitoring wells could not be sampled in 2024 due to insufficient recharge/water, and only one monitoring well (2016-10) could not be sampled in H1 2024 due to pump failure. These pump issues were resolved and this well was sampled during the H2 2024 event. One well which was not sampled in 2023 due to pump failure (9631) had a replacement pump installed in December 2023 and was sampled in 2024. In many cases, poor recharge and significant depth to groundwater resulted in short water columns that made it challenging to produce enough groundwater to collect sufficient sample volume. In these cases, Gavin is investigating the potential for using passive sampling methods (e.g. dual-membrane passive diffusion bags).

TABLE 4-1: 2024 SAMPLING DATES FOR RWL/FAR COMBINED NETWORK

Monitoring Well	Geologic Unit	Location	Sampling Dates	
			H1	H2
2000	Morgantown	Downgradient	March 14, 2024	September 25, 2024
2003	Morgantown	Upgradient	March 13, 2024	September 19, 2024
9396	Cow Run	Upgradient	Abandoned/Replaced (2022-19)	
9631	Cow Run	Downgradient	March 13, 2024	September 20, 2024
9801	Cow Run	Upgradient	March 14, 2024	September 11, 2024
9802	Alluvium	Downgradient	March 14, 2024	September 23, 2024
9806	Morgantown	Downgradient	March 14, 2024	September 25, 2024
9910	Morgantown	Upgradient	NS[1]	NS[1]
93100	Cow Run	Upgradient	March 25, 2024	October 2, 2024
93108	Morgantown	Downgradient	March 15, 2024	September 19, 2024
94136	Cow Run	Downgradient	March 15, 2024	September 27, 2024
94137	Alluvium	Downgradient	March 15, 2024	September 27, 2024
94139	Morgantown	Upgradient	March 15, 2024	September 20, 2024
96152	Morgantown	Upgradient	March 8, 2024	September 13, 2024
96153R	Morgantown	Upgradient	March 8, 2024	September 30, 2024
96154R	Morgantown	Upgradient	March 6, 2024	September 26, 2024
96156	Morgantown	Upgradient	Abandoned/Replaced (2022-18)	
96157	Alluvium	Downgradient	March 11, 2024	September 17, 2024
96158	Cow Run	Downgradient	March 11, 2024	September 17, 2024
2016-03	Morgantown	Upgradient	Abandoned	
2016-04	Cow Run	Upgradient	Abandoned	
2016-05	Morgantown	Downgradient	March 8, 2024	September 16, 2024
2016-06	Cow Run	Downgradient	March 8, 2024	September 20, 2024
2016-07	Morgantown	Upgradient	March 7, 2024	September 25, 2024
2016-08	Cow Run	Upgradient	Abandoned/Replaced (2022-15)	

Monitoring Well	Geologic Unit	Location	Sampling Dates	
			H1	H2
2016-09	Cow Run	Upgradient	Abandoned/Replaced (2022-16)	
2016-10	Cow Run	Upgradient	NS[2]	September 10, 2024
2016-11	Morgantown	Upgradient	NS[1]	NS[1]
2018-01	Cow Run	Downgradient	Abandoned/Replaced (2022-17)	
2018-02	Morgantown	Downgradient	March 13, 2024	September 24, 2024
2018-03	Cow Run	Downgradient	March 13, 2024	September 24, 2024
2018-04	Morgantown	Downgradient	March 13, 2024	September 24, 2024
2019-02	Morgantown	Upgradient	Abandoned/Replaced (2022-14)	
2019-06	Morgantown	Upgradient	NS[1]	NS[1]
2019-07	Cow Run	Upgradient	March 11, 2024	September 18, 2024
2019-09	Cow Run	Upgradient	March 12, 2024	September 17, 2024
MW-16	Morgantown	Upgradient	NS[1]	NS[1]
MW-17	Cow Run	Upgradient	March 12, 2024	September 19, 2024
MW-20	Cow Run	Upgradient	March 8, 2024	September 30, 2024

Notes: H1 = spring; H2 = fall; NS = Not Sampled
[1] Not sampled due to insufficient volume of water to allow collection of samples.
[2] Not sampled due to pump failure.
The monitoring wells installed in 2022 have been under observation to determine if water levels have reached equilibrium with their respective aquifers. In 2024, samples were collected from locations with sufficient water columns for low-flow sampling. At locations with short water columns, Gavin is investigating the potential for using passive sampling methods.

In addition to the semiannual groundwater monitoring events at the Site required under 40 CFR § 257.94, supplemental samples were collected at wells in the combined monitoring network under 40 CFR § 257.94(b). Samples were collected on a monthly or bi-monthly basis throughout 2024 from existing wells that were recently added to the network (9631, 9910, 2018-03, 2019-06) towards the required minimum of eight independent samples for each background well for the constituents listed in Appendices III and IV.

4.3 DATA QUALITY REVIEW

ERM reviewed field and laboratory documentation to assess the validity, reliability, and usability of the analytical results. Samples collected in 2024 were analyzed by the Eurofins Canton/Cleveland

laboratory, located in Barberton, Ohio. Data quality information reviewed for these results included field sampling forms, chain-of-custody documentation, holding times, laboratory methods, cooler temperatures, laboratory method blanks, laboratory control sample recoveries, field duplicate samples, matrix spikes/matrix spike duplicates, and equipment blanks. Data qualifiers were appended to results in the project database, as appropriate, based on laboratory quality measurements (e.g., control sample recoveries) and field quality measurements (e.g., agreement between normal and field duplicate samples). ERM's data quality review found the laboratory analytical results to be valid, reliable, and usable for decision making purposes with the listed qualifiers. No analytical results were rejected.

5. MONITORING RESULTS

5.1 GROUNDWATER POTENTIOMETRIC CONTOURS AND FLOW DIRECTION

Depth to groundwater measurements were collected in March and August 2024 at each monitoring well prior to each sampling event. Resulting potentiometric elevations were calculated by subtracting the depth to groundwater from the surveyed reference elevation for each well. Potentiometric elevations, interpreted potentiometric surface maps, and interpreted groundwater flow directions for wells screened in the Morgantown Sandstone (and alluvium) and Cow Run Sandstone are presented on Figures 5-1 and 5-2 (2024 H1) and Figures 5-3 and 5-4 (2024 H2), respectively.

The principal direction of groundwater flow in the uppermost aquifer system under the RWL and FAR (both in the Morgantown Sandstone and in Cow Run Sandstone) is from the north and northwest to the south and southeast, towards the Ohio River which is the local discharge boundary. Groundwater velocity estimates are presented in the next sections.

5.2 GROUNDWATER VELOCITY CALCULATION

5.2.1 MORGANTOWN SANDSTONE GROUNDWATER VELOCITY

Horizontal hydraulic gradients were calculated for the Morgantown Sandstone using groundwater elevations calculated at wells 96154R and 2018-02 for both the spring and fall sampling events. The velocity of groundwater through the Morgantown sandstone is estimated based on the measured horizontal hydraulic gradient, estimated hydraulic conductivity of 7.18×10^{-5} centimeters per second (Geosyntec 2012), and an estimated effective porosity value of 0.01 for fractured bedrock. For both the spring and fall sampling events, a horizontal hydraulic gradient of 0.010 was calculated, resulting in an estimated average groundwater velocity of 77 to 79 feet/year. Groundwater velocities in 2024 were similar to those calculated in 2023 (77 to 78 feet/year).

5.2.2 COW RUN SANDSTONE GROUNDWATER VELOCITY

Horizontal hydraulic gradients were calculated for the Cow Run Sandstone using groundwater elevations calculated at wells 96149 and 94136 for both the spring and fall sampling events. The velocity of groundwater through the Cow Run sandstone is estimated based on the measured horizontal hydraulic gradient, the estimated hydraulic conductivity of 2.92×10^{-5} centimeters per second (Geosyntec 2012), and an effective porosity value of 0.01 for fractured bedrock. Horizontal hydraulic gradients of 0.010 were calculated for both the spring and fall 2024 sampling events, resulting in an estimated average groundwater velocity of 31 to 32 feet/year. Groundwater velocities in 2024 were similar to those calculated in 2023 (31 feet/year).

5.3 COMPARISON OF RESULTS TO PREDICTION LIMITS

Consistent with the CCR Rule and with Gavin's Statistical Analysis Plan (ERM 2017), an interwell prediction limit approach was used to identify potential impacts to groundwater. Upper prediction limits were developed for the Appendix III parameters; in the case of pH, a lower prediction limit

was also developed. Documentation of the development of the upper prediction limits and lower prediction limit is provided in the 2018 Alternate Source Demonstration (ERM 2018c).

5.3.1 2024 SAMPLING EVENT RESULTS

Table 5-1 identifies no SSIs in the Morgantown/Alluvium downgradient wells and Table 5-2 identifies SSIs in one Cow Run downgradient well for the March (H1) and September/October (H2) 2024 monitoring events based on a comparison of the sampling results in downgradient wells to the prediction limits for the respective Appendix III analytes.

TABLE 5-1: NO SSIs FROM 2024 SAMPLING EVENTS—MORGANTOWN/ALLUVIUM

	Monitoring Well																	
	2000		93108		94137		96157		9802		9806		2016-05		2018-02		2018-04	
Analyte/Event	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
Boron	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Calcium	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Chloride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Fluoride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
pH	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Sulfate	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Total Dissolved Solids	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ

Notes: H1 = spring; H2 = fall; ϕ = No SSI; SSI = statistically significant increase

TABLE 5-2: SSIs FROM 2024 SAMPLING EVENTS—COW RUN

	Monitoring Well											
	94136		96158		9631		2016-06		2018-01		2018-03	
Analyte/Event	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
Boron	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	NS	NS	ϕ	ϕ
Calcium	ϕ	ϕ	ϕ	ϕ	X	X	ϕ	ϕ	NS	NS	ϕ	ϕ
Chloride	ϕ	ϕ	ϕ	ϕ	X	X	ϕ	ϕ	NS	NS	ϕ	ϕ
Fluoride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	NS	NS	ϕ	ϕ
pH	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	NS	NS	ϕ	ϕ
Sulfate	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	NS	NS	ϕ	ϕ
Total Dissolved Solids	ϕ	ϕ	ϕ	ϕ	X	X	ϕ	ϕ	NS	NS	ϕ	ϕ

Notes: H1 = spring; H2 = fall; NS = not sampled; ϕ = No SSI; X = SSI; SSI = statistically significant increase
Monitoring well 2018-01 was abandoned in Fall 2022.

March 2024 SSIs were attributed to alternate sources, which were documented in the *Gavin RWL and FAR First Semiannual Sampling Event of 2024 ASD Report* which is included as Appendix C. The 2024 H1 ASD report identified regional discharge of naturally occurring brine originating from bedrock as the alternate source.

October/November 2024 SSIs were attributed to alternate sources, which were documented in the *Gavin RWL and FAR Second Semiannual Sampling Event of 2024 ASD Report*, which is included as Appendix D. The 2024 H2 ASD report identified regional discharge of naturally occurring brine originating from bedrock as the alternate source.

A summary of analytical results obtained from the RWL/FAR groundwater monitoring is provided in Appendix E. Laboratory analytical reports from both the spring and the fall sampling events as well as the supplemental sampling events are provided in Appendix F.

6. KEY FUTURE ACTIVITIES

The following key future activities are planned for 2025:

Groundwater Sampling

- Two groundwater sampling events will be performed in 2025 as part of the detection monitoring program at the RWL/FAR and the results will be compared to the prediction limits.
- Monitoring wells that were installed in 2022 will continue to be sampled and evaluated for addition to the certified monitoring network for use as background or compliance wells.
- Dedicated groundwater sampling pumps will continue to be inspected and repaired, or replaced, as necessary.
- Pilot testing of passive sampling methods will continue at locations where sample collection has been challenging due to low recharge resulting in low sample volume.

Groundwater Hydraulic Monitoring

- Monitoring wells installed in 2022 will continue to be gauged along with existing monitoring wells to establish relative hydraulic positions and evaluate areas of interest (e.g., the hydraulic ridges around the RWL).
- Transducers have been installed in six monitoring wells around the RWL/FAR. In 2025, transducer data will be downloaded, and the data processed and evaluated to support updates to the Conceptual Site Model.

Monitoring Network

- Replacements for monitoring wells 2016-03 and 2016-04 will be installed in Q1 2025.
- The existing monitoring network will be evaluated for potential additional wells.
- The background dataset will be evaluated and updated, if appropriate, to include all valid background data.

7. REFERENCES

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FIGURES



Figure 1-1: Gavin Plant Location
Gavin Generating Station
Cheshire, Ohio

ERM

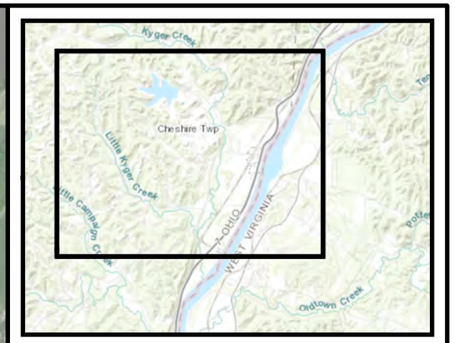
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Fly Ash Reservoir

Residual Waste Landfill

Bottom Ash Pond

Ohio River



Legend

- Bottom Ash Pond
- Fly Ash Reservoir
- Residual Waste Landfill
- Property Boundary

NOTES:
1. Aerial Imagery: ESRI World Imagery
   Reproduced under license in ArcGIS 10.8

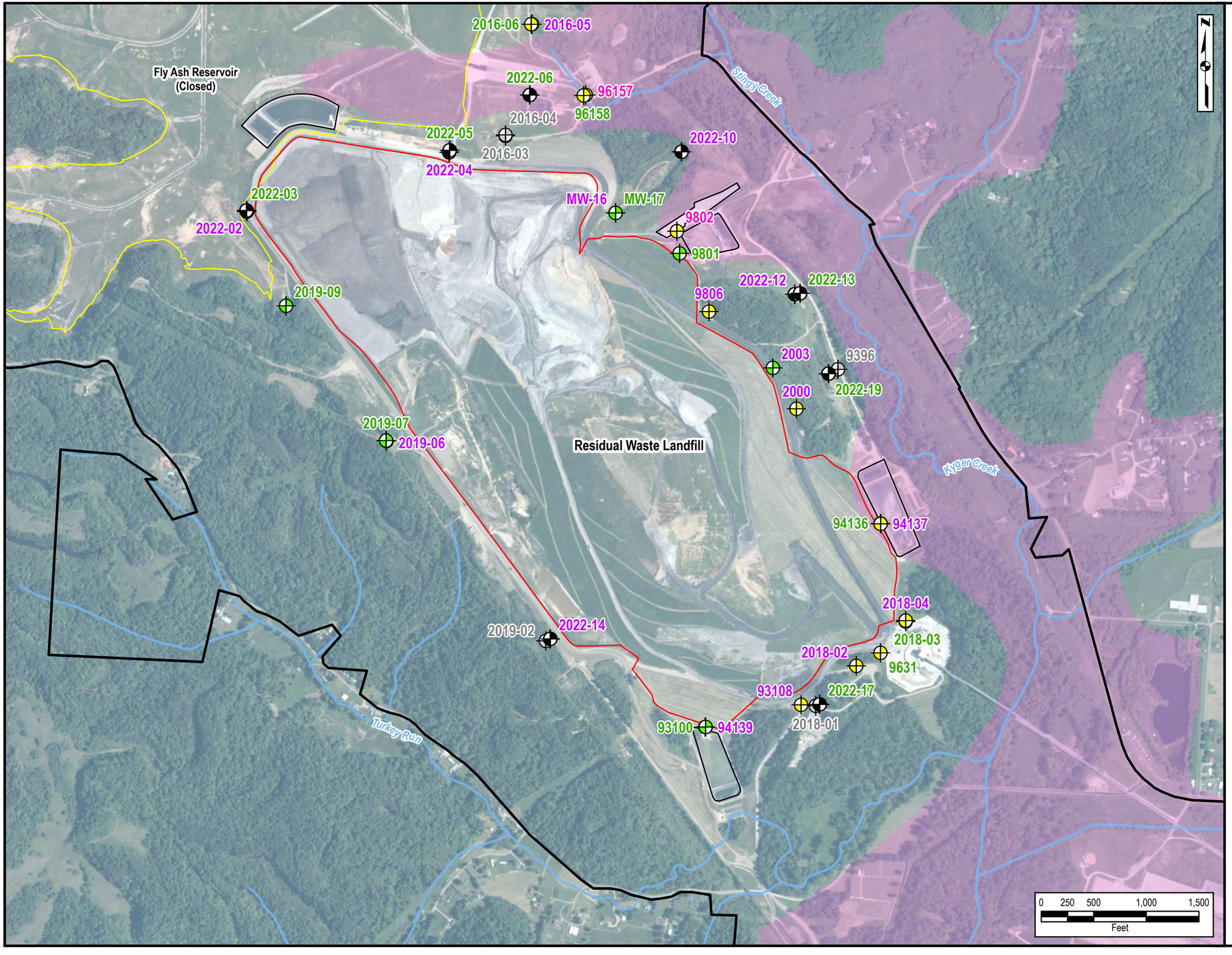
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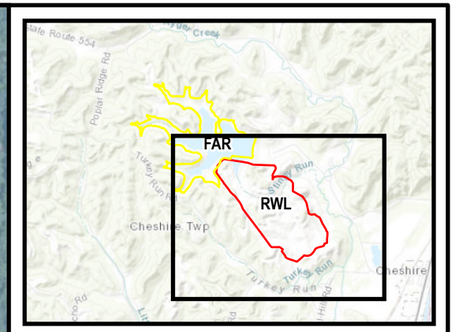
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Figure 3-1: RWL and FAR Locations
Gavin Generating Station
Cheshire, Ohio

ERM

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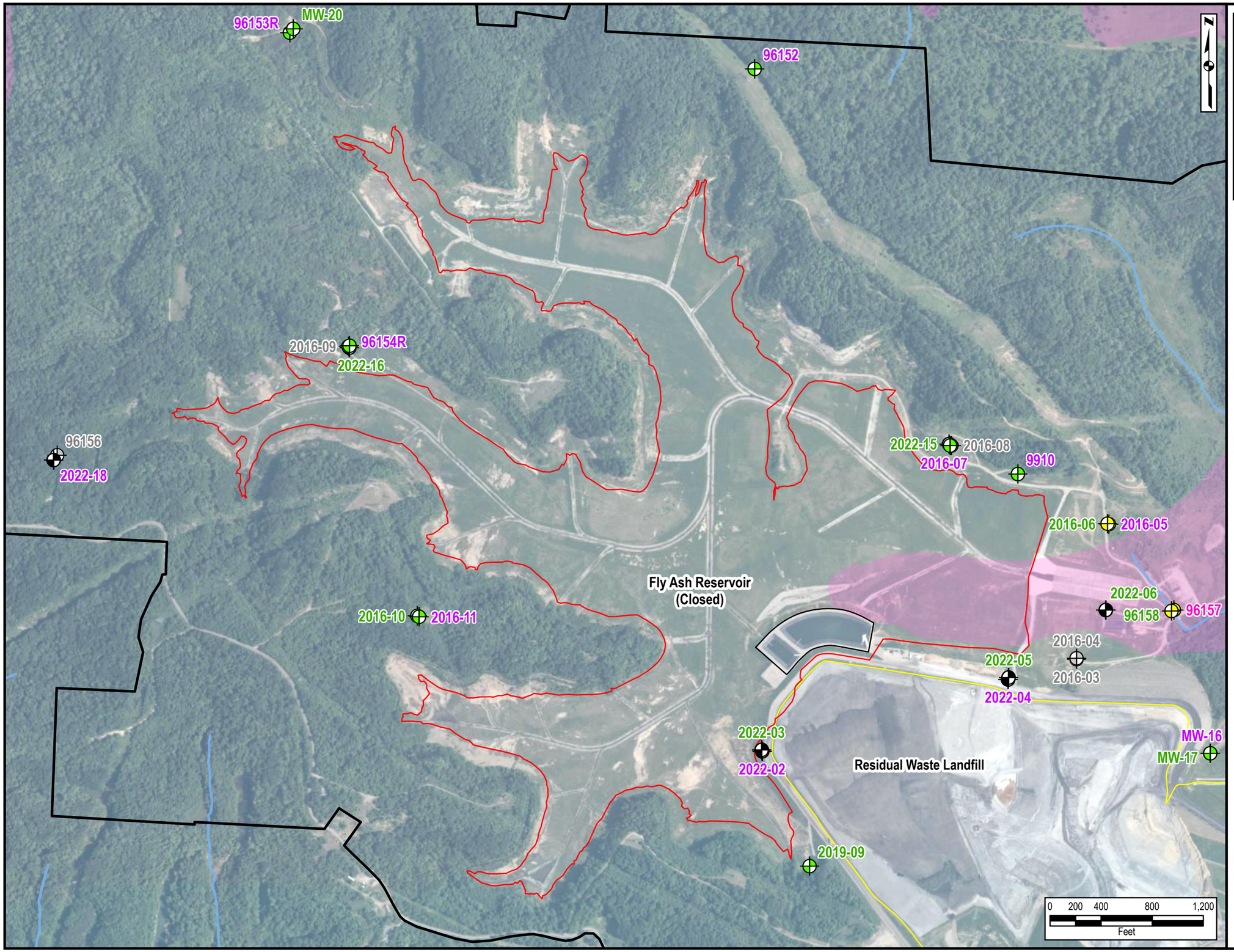
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- Federal Upgradient Monitoring Well
- Federal Downgradient Monitoring Well
- Abandoned Well
- Stream/Creek
- Pond Area
- Residual Waste Landfill
- Fly Ash Reservoir
- Gavin Property Boundary
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)
- 94138 Alluvium Monitoring Well
- 93108 Morgantown Monitoring Well
- 93105 Cow Run Monitoring Well
- 96156 Abandoned Well

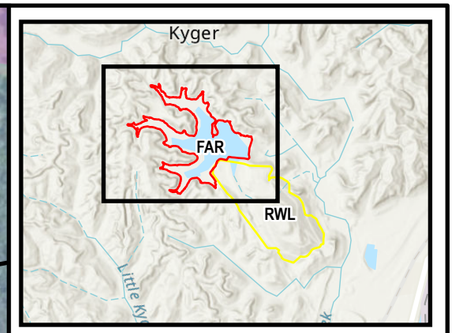
NOTES:

1. Aerial Imagery: USDA National Agriculture Imagery Program (NAIP), May 2023

Figure 3-2: Federal Monitoring Well Locations
Residual Waste Landfill Area
Gavin Power, LLC
Cheshire, Ohio

ERM





Legend

- 2022 Well (Under Evaluation)
- Federal Upgradient Monitoring Well
- Federal Downgradient Monitoring Well
- Abandoned Well
- Stream/Creek
- Pond Area
- Fly Ash Reservoir
- Residual Waste Landfill
- Gavin Property Boundary
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)
- 94138 Alluvium Monitoring Well
- 93108 Morgantown Monitoring Well
- 93105 Cow Run Monitoring Well
- 96156 Abandoned Well

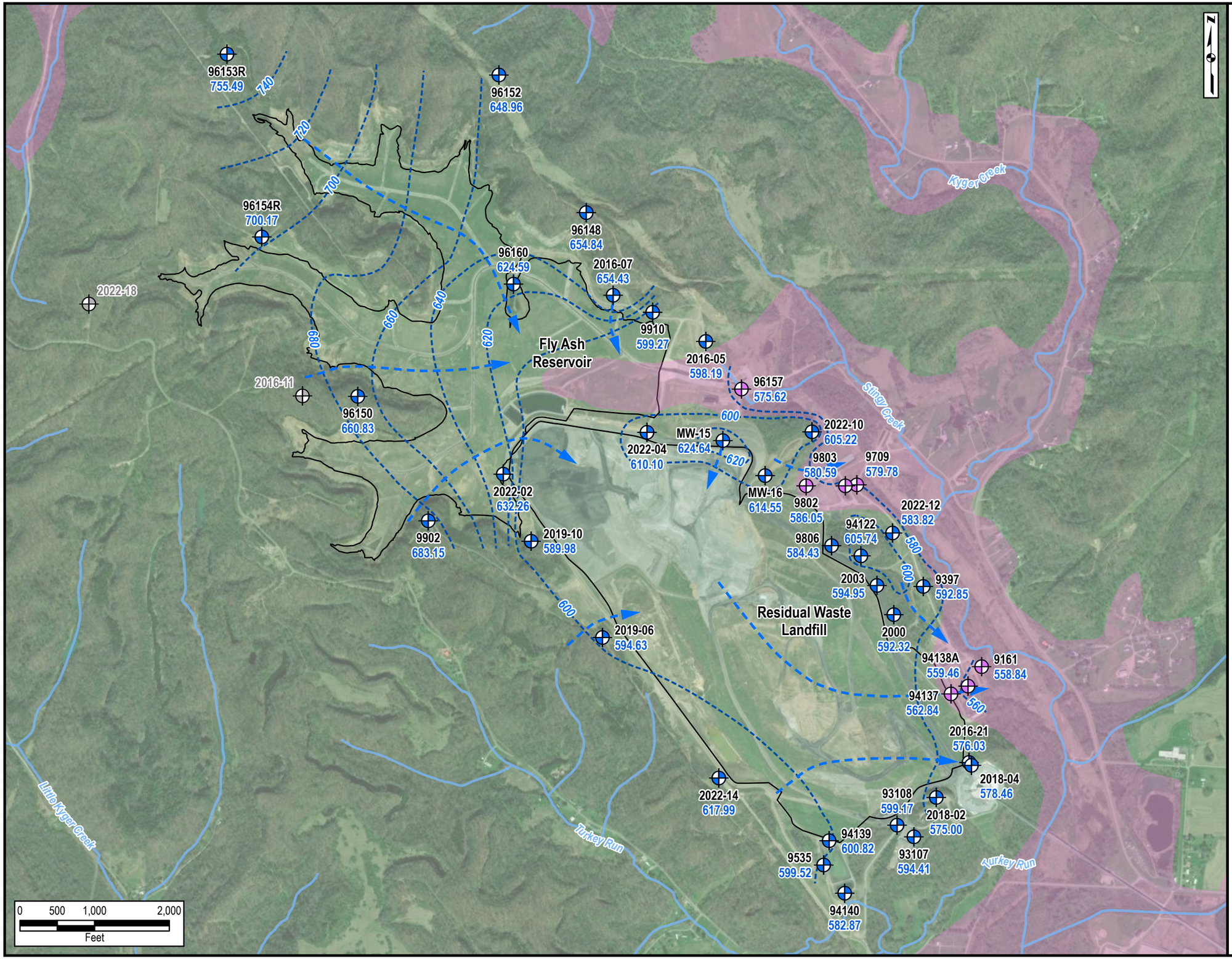
NOTES:

1. Aerial Imagery: USDA National Agriculture Imagery Program (NAIP), May 2023

Figure 3-3: Federal Monitoring Well Locations
Fly Ash Reservoir Area
Gavin Power, LLC
Cheshire, Ohio

ERM

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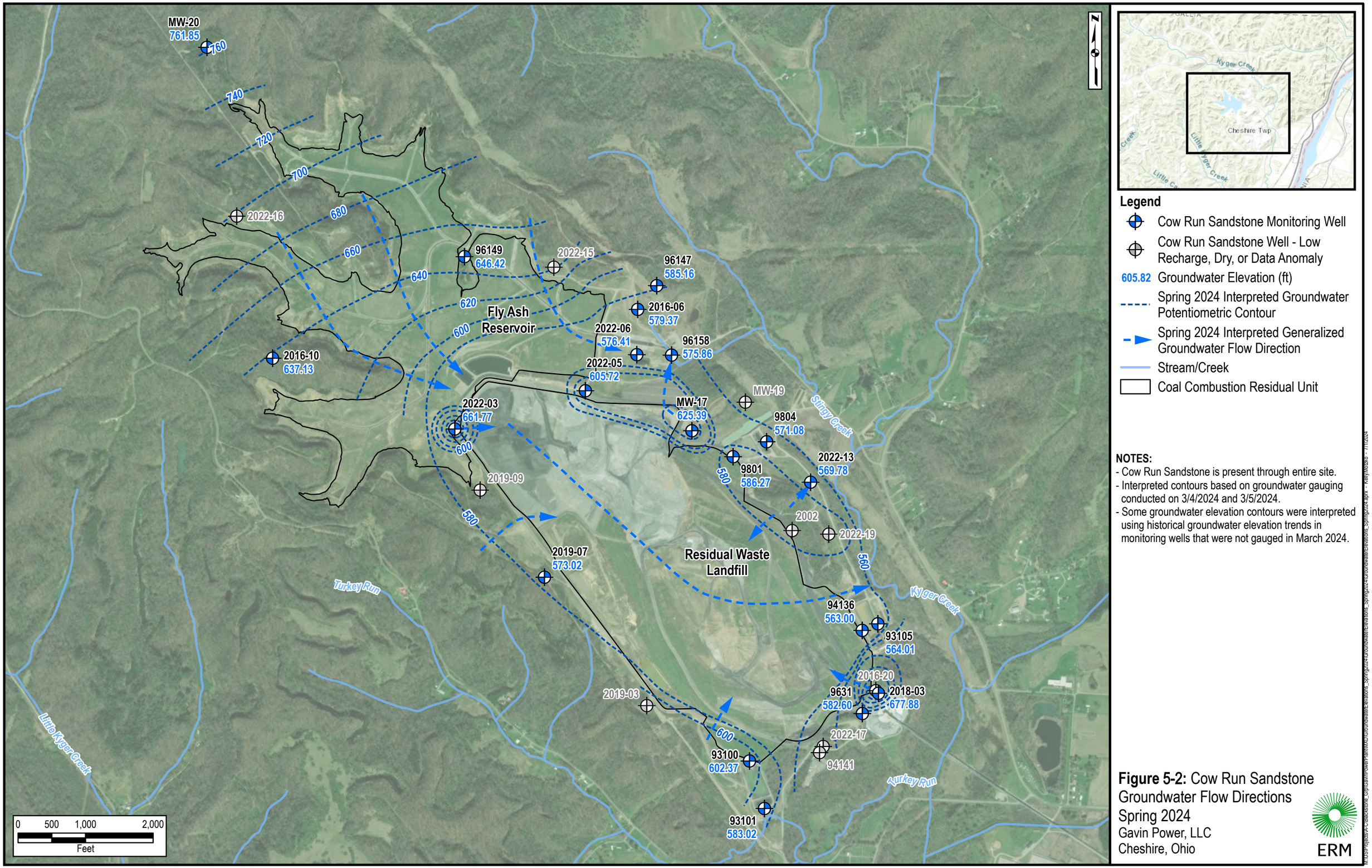
- Morgantown Sandstone Monitoring Well
- Morgantown Sandstone Monitoring Well - Low Recharge, Dry, Data Anomaly, or Not Gauged
- Alluvium Monitoring Well
- 605.82 Groundwater Elevation (ft)
- Spring 2024 Interpreted Groundwater Potentiometric Contour
- Spring 2024 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)

NOTES:

- Interpreted contours based on groundwater gauging conducted on 3/4/2024 and 3/5/2024.
- Some groundwater elevation contours were interpreted using historical groundwater trends in monitoring wells that were not gauged in March 2024.
- Where the Morgantown SS is absent, the contours represent the potentiometric surface in the alluvial aquifer because these aquifers are hydraulically connected.
- Interpreted groundwater flow directions include potential influence from GWIs.

Figure 5-1: Morgantown Sandstone Groundwater Flow Directions Spring 2024
Gavin Power, LLC
Cheshire, Ohio

ERM



Legend

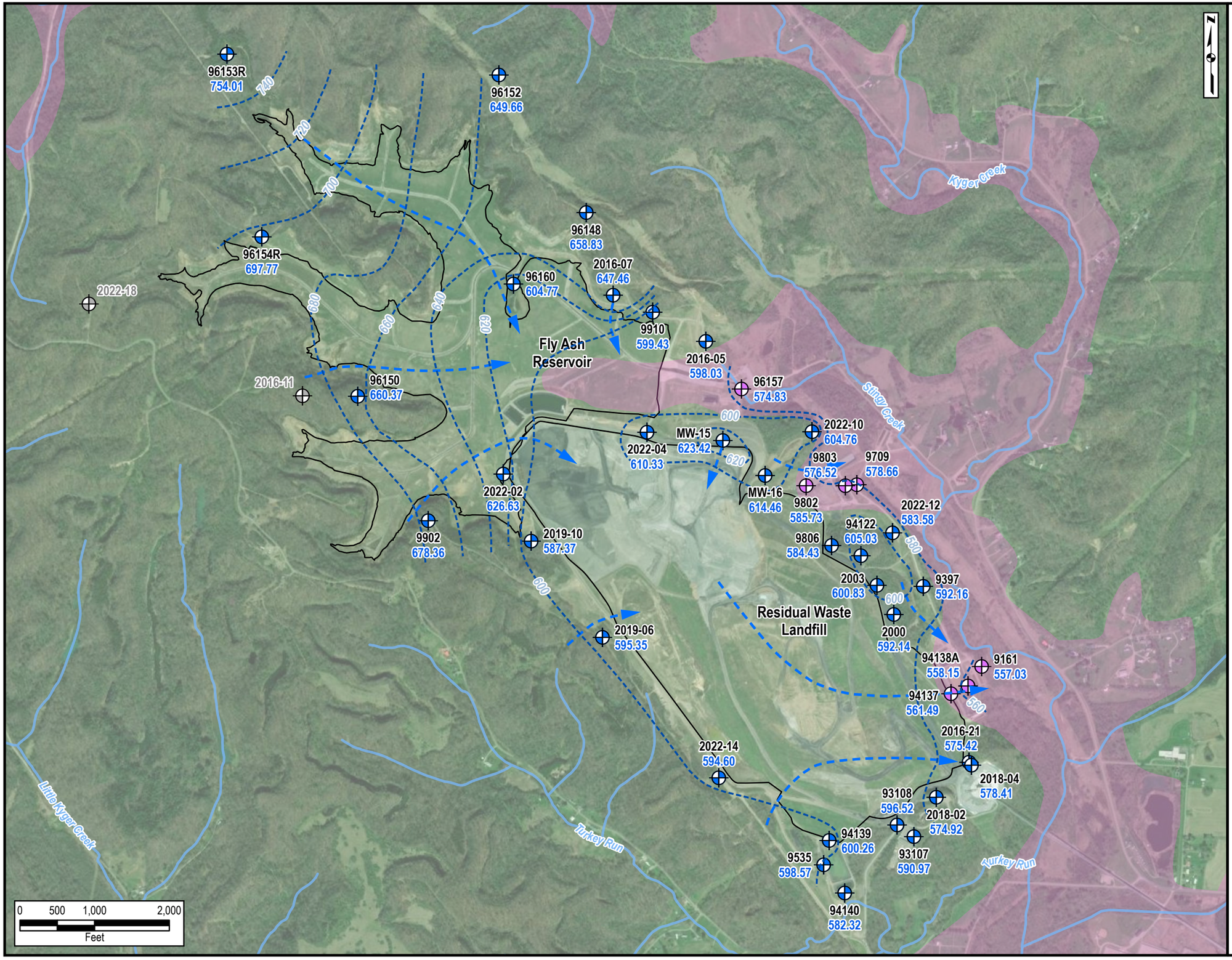
- Cow Run Sandstone Monitoring Well
- Cow Run Sandstone Well - Low Recharge, Dry, or Data Anomaly
- 605.82 Groundwater Elevation (ft)
- Spring 2024 Interpreted Groundwater Potentiometric Contour
- Spring 2024 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit

NOTES:

- Cow Run Sandstone is present through entire site.
- Interpreted contours based on groundwater gauging conducted on 3/4/2024 and 3/5/2024.
- Some groundwater elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in March 2024.

Figure 5-2: Cow Run Sandstone Groundwater Flow Directions Spring 2024
Gavin Power, LLC
Cheshire, Ohio

ERM

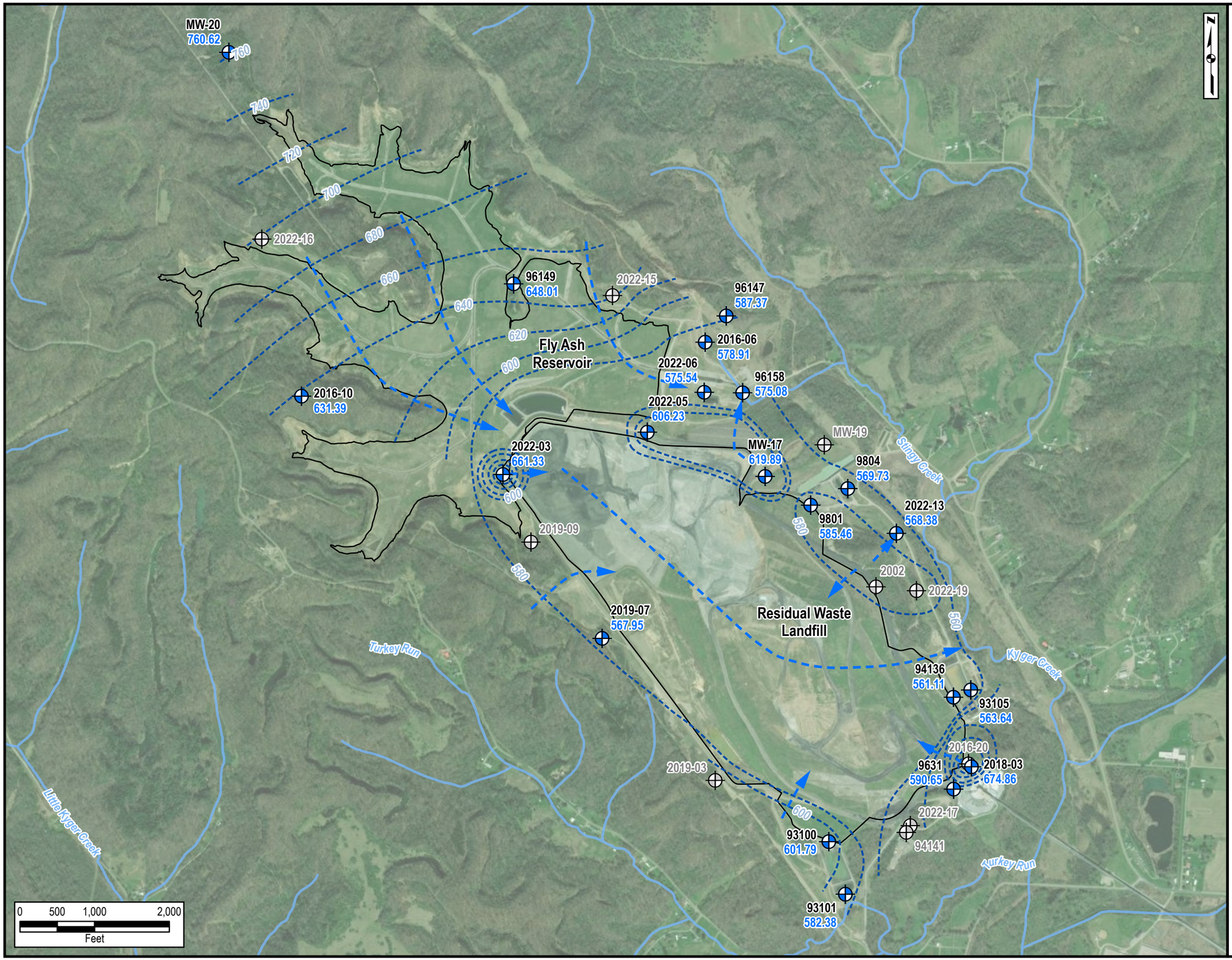


NOTES:

- Interpreted contours based on groundwater gauging conducted on 8/26/2024 - 8/27/2024.
- Some groundwater elevation contours were interpreted using historical groundwater trends in monitoring wells that were not gauged in August 2024.
- Where the Morgantown SS is absent, the contours represent the potentiometric surface in the alluvial aquifer because these aquifers are hydraulically connected.
- H2 refers to the second half of 2024

Figure 5-3: Morgantown Sandstone Groundwater Flow Directions
H2 2024
Gavin Power, LLC
Cheshire, Ohio

ERM



Legend

- Cow Run Sandstone Monitoring Well
- Cow Run Sandstone Well - Low Recharge, Dry, or Data Anomaly
- 605.82 Groundwater Elevation (ft)
- H2 2024 Interpreted Groundwater Potentiometric Contour
- H2 2024 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit

NOTES:

- Cow Run Sandstone is present through entire site.
- Interpreted contours based on groundwater gauging conducted on 8/26/2024 - 8/27/2024.
- Some groundwater elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in August 2024.
- H2 refers to the second half of 2024

Figure 5-4: Cow Run Sandstone Groundwater Flow Directions H2 2024
Gavin Power, LLC
Cheshire, Ohio

ERM

APPENDIX A WELL CONSTRUCTION SUMMARY

Appendix A
Well Construction Details
Gavin Residual Waste Landfill and Fly Ash Reservoir
Cheshire, OH

Well ID	Boring Completion Date	Hydrogeologic Unit	Site Area	Latitude	Longitude	Top of Borehole Elevation (ft)	Top of Casing Elevation (ft)	Total Well Depth (ft bgs)	Screen Start Depth (ft bgs)	Screen End Depth (ft bgs)	Screen Length (ft)	Well Diameter (in)	Screen Material
Federal CCR Monitoring Wells													
2000	2/10/2000	Morgantown	RWL	2072693.04	348163.03	716.68	718.43	150.4	119.6	148.6	29	2	PVC SCH 40
2003	3/7/2000	Morgantown	RWL	2072467.35	348553.78	724.28	726.56	143.98	122.7	141.7	19	2	PVC SCH 40
9396	2/8/1993	Cow Run	RWL	2073087.37	348540.79	613.61	616.22	121.4	114.8	116.8	2	1	NA
9631	10/17/1996	Cow Run	RWL	2073493.05	345839.57	706.7	709.15	227.9	187.1	225.9	38.8	2	NA
9801	12/3/1998	Cow Run	RWL	2071580.02	349642.02	609.77	611.37	130.00	109.4	129	19.6	2	PVC SCH 40
9802	12/2/1998	Alluvium	RWL	2071555.02	349857.02	610.39	612.39	51.1	39	49.1	10.1	2	PVC SCH 40
9806	12/29/1998	Morgantown	RWL	2071860.03	349092.02	718.29	720.29	142	111	140	29	2	PVC SCH 40
9910	8/4/1999	Morgantown	FAR	2069464.98	352217.01	NA	697.07	102.07	57.07	102.07	45	2	PVC SCH 80
93100	7/20/1994	Cow Run	RWL	2071823.04	345135.01	612.00	614.04	114.29	73.35	112.25	38.9	2	PVC SCH 40
93108	8/10/1993	Morgantown	RWL	2072737.05	345345.02	716.72	718.48	151.66	129.9	149.9	20	2	PVC SCH 40
94136	9/8/1994	Cow Run	RWL	2073492.06	347074.03	594.00	596.25	120.75	79.4	118.5	39.1	2	PVC SCH 40
94137	9/7/1994	Alluvium	RWL	2073494.06	347070.03	594.00	596.27	55.17	44	52.9	8.9	2	PVC SCH 40
94139	7/21/1994	Morgantown	RWL	2071828.04	345135.01	612.00	614.11	62.26	41.25	60.15	18.9	2	PVC SCH 40
96152	6/25/1996	Morgantown	FAR	2067403.94	355388.99	777.28	779.44	168.16	127	166	39	2	PVC SCH 40
96153R	2/29/2016	Morgantown	FAR	2063762.89	355668.96	771.91	773.88	116.97	102	112	10	2	PVC SCH 80
96154R	3/3/2016	Morgantown	FAR	2064229.90	353220.96	736.25	738.21	101.86	86	96	10	2	PVC SCH 80
96156	1/3/1996	Morgantown	FAR	2061940.88	352363.94	851.81	854.2	224.49	220.1	222.1	2	1	PVC SCH 80
96157	11/21/1995	Alluvium	FAR	2070687.00	351151.01	584.6	586.52	48.63	37.7	46.7	9	2	PVC SCH 40
96158	11/29/1995	Cow Run	FAR	2070668.00	351145.01	584.7	586.5	60.96	50.2	59.2	9	2	PVC SCH 40
2016-03	3/23/2016	Morgantown	FAR	2069923.99	350764.01	659.06	650.94	56.05	42	52	10	2	PVC SCH 80
2016-04	3/28/2016	Cow Run	FAR	2069923.99	350773.01	658.98	649.36	137.06	123	133	10	2	PVC SCH 80
2016-05	3/29/2016	Morgantown	FAR	2070176.99	351823.01	648.70	650.97	58.27	44	54	10	2	PVC SCH 80
2016-06	3/29/2016	Cow Run	FAR	2070167.99	351825.01	649.02	651.1	126.08	112	122	10	2	PVC SCH 80
2016-07	3/29/2016	Morgantown	FAR	2068933.97	352440.00	728.84	731.45	107.61	93	103	10	2	PVC SCH 80
2016-08	3/23/2016	Cow Run	FAR	2068943.97	352440.00	728.84	731.38	196.54	182	192	10	2	PVC SCH 80
2016-09	3/3/2016	Cow Run	FAR	2064221.9	353215.96	736.83	739.22	191.39	177	187	10	2	PVC SCH 80
2016-10	3/4/2016	Cow Run	FAR	2064761.92	351103.96	864.62	866.97	311.35	294	304	10	2	PVC SCH 80
2016-11	3/4/2016	Morgantown	FAR	2064774.92	351096.96	864.51	866.88	260.37	245	255	10	2	PVC SCH 80
2018-01	12/5/2018	Cow Run	RWL	2072876.05	345335.88	735	735.781	260.00	235	255.5	20.5	2	PVC SCH 40
2018-02	10/24/2018	Morgantown	RWL	2073262.43	345715.60	755	757.316	195.00	182.5	194.5	12	2	PVC SCH 40
2018-03	11/19/2018	Cow Run	RWL	2073732.79	346138.61	707	708.807	226.00	197.8	221.5	23.7	2	PVC SCH 40
2018-04	11/1/2018	Morgantown	RWL	2073732.35	346148.53	707	708.182	137.5	124	134	10	2	PVC SCH 40
2019-02	2/20/2020	Morgantown	RWL	2070306.50	345958.13	739.55	742.347	178	158	178	20	2	PVC SCH 40
2019-06	1/28/2020	Morgantown	RWL	2068790.41	347858.46	813.07	815.915	224	194	224	30	2	PVC SCH 40
2019-07	1/20/2020	Cow Run	RWL	2068786.90	347861.86	812.91	815.91	270	250	270	20	2	PVC SCH 40
2019-09	11/26/2019	Cow Run	RWL	2067834.23	349146.48	747.77	750.767	220	200	220	20	2	PVC SCH 40
MW-16	10/5/2016	Morgantown	RWL	2070971.09	350029.07	727.96	730.76	121.4	109	119	10	2	PVC SCH 40
MW-17	10/3/2016	Cow Run	RWL	2070971.09	350029.07	727.73	730.64	215.4	203	213	10	2	PVC SCH 40
MW-20	5/8/2012	Cow Run	FAR	2063789.89	355701.96	771.80	774.3	222.5	210	220	10	2	PVC SCH 80

Appendix A
Well Construction Details
Gavin Residual Waste Landfill and Fly Ash Reservoir
Cheshire, OH

Well ID	Boring Completion Date	Hydrogeologic Unit	Site Area	Latitude	Longitude	Top of Borehole Elevation (ft)	Top of Casing Elevation (ft)	Total Well Depth (ft bgs)	Screen Start Depth (ft bgs)	Screen End Depth (ft bgs)	Screen Length (ft)	Well Diameter (in)	Screen Material
2022 Replacement Monitoring Wells													
2022-14	7/24/2022	Morgantown	RWL	2070349.795	345975.5035	740.42	743.04	180.00	158	178	20	2	PVC SCH 40
2022-15	8/5/2022	Cow Run	FAR	2068926.25	352451.0853	729.55	732.09	194.00	182	192	10	2	PVC SCH 40
2022-16	8/9/2022	Cow Run	FAR	2064228.927	353206.6888	736.19	738.37	189.00	177	187	10	2	PVC SCH 40
2022-17	9/14/2022	Cow Run	RWL	2072913.835	345353.3472	733.39	735.83	257.00	235	255	20	2	PVC SCH 40
2022-18	8/18/2022	Morgantown	FAR	2061913.471	352327.0836	852.04	854.41	211.00	199	209	10	2	PVC SCH 40
2022-19	7/26/2022	Cow Run	RWL	2072997.258	348497.3409	613.58	616.04	119.00	107	117	10	2	PVC SCH 40

Notes: Datum is SP/NAD83/NGVD29.
For lithology at well 2003, see the boring log for well 2002.
ft = feet; in = inches; bgs = below ground surface; NA = not available

APPENDIX B BORING AND WELL CONSTRUCTION LOGS

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

COORDINATES **N 351,118.0 E 2,070,648.6**

GROUND ELEVATION **584.6** SYSTEM **STATE PLANE**

WATER LEVEL	▽ 38.6	▽	▽
TIME			
DATE	11-21-95		

BORING NO. **96157** DATE SHEET **1** OF **1**

BORING START **11/20/95** BORING FINISH **11/21/95**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND **1.93** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **37.7** BOTTOM **46.7**

WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**

FIELD PARTY **TJH-REB** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	2.5	4.0	5-7-9	1.1				CL	**BROWN AND RED SILTY CLAY** Moist.		38.6 SWL over nite. 7.2 SWL 12-3-96.
2	SS	7.5	9.0	2-4-4	1.2		5					Latitude 38 57 48.52170 N. = Longitude 082 08 26.71347 W.
3	SS	12.5	14.0	2-3-5	1.1		10		SM	**BROWN SILTY SAND** Wet.		
4	SS	17.5	18.7	6-8-10	1.3		15		CL	**GRAY SILTY CLAY** Moist.		
5	SS	22.5	24.0	6-12-18	1.0		20			**GRAY CLAY** Moist.		
6	SS	27.5	29.0	4-6-9	1.1		25			**REDDISH BROWN CLAY** Wet.		
7	SS	32.5	34.0	4-6-8	1.0		30			**GRAY SILTY CLAY** Wet with rock fragments.		26.7 Top of seal.
8	SS	37.5	39.0	4-7-9	1.2		35		SP	**BROWN SAND** Saturated, fine grain.		31.2 Top of sand.
9	SS	42.5	44.0	4-7-10	1.2		40		CL	**GRAY CLAY** Moist.		37.5 Top of screen.
10	SS	47.5	48.0	77	?		45			**GRAY SANDY CLAY** Wet.		
										GRAY CLAY SHALE Dry.		46.7 Bottom of screen 47.8 Bottom of sand.

TYPE OF CASING USED

	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REB**

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

COORDINATES **N 351,115.0 E 2,070,634.8**

GROUND ELEVATION **584.7** SYSTEM **STATE PLANE**

WATER LEVEL	▽ 7.3	▽	▽
TIME			
DATE	11-29-95		

BORING NO. **96158** DATE SHEET **1** OF **2**

BORING START **11/27/95** BORING FINISH **11/29/95**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND **1.76** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **50.2** BOTTOM **59.2**

WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**

FIELD PARTY **TJH-WEB** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							5		CL	**BROWN AND RED SILTY CLAY** Moist.		Latitude 38 57 48.49213 N. = Longitude 082 08 26.88801 W.
							10		SM	**BROWN SILTY SAND** Wet.		
							15		CL	**GRAY SILTY CLAY** Moist.		
							20			**GRAY CLAY** Moist.		
							25			**REDDISH BROWN CLAY** Wet.		
							30			**GRAY SILTY CLAY** Wet with rock fragments.		
							35		SP	**BROWN SAND** Saturated, fine grain.		
							40		CL	**GRAY CLAY** Moist.		
							45			**GRAY SANDY CLAY** Wet.		46.0 Top of seal.
1	NQ	47.5	49.5		1.4	40				**GRAY SANDY CLAYSHALE** **GRAY SHALEY SANDSTONE** Hard.		48.5 Top of sand.

Continued Next Page

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
X	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **WEB**

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96158** DATE SHEET **2** OF **2**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **11/27/95** BORING FINISH **11/29/95**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
2	NQ	49.5	55.3		5.6	62	55			**GRAY CLAY SHAEL** Hard, except of 2 small sandstone lenses between 50' and 51' and soft shale layers from 51.7 and 52.4.		50.2 Top of screen.
3	NQ	55.3	60.3		5.0	62	60			**GRAY CLAY SHALE** Hard.		59.2 Bottom of screen. 61.3 Bottom of sand.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER _____

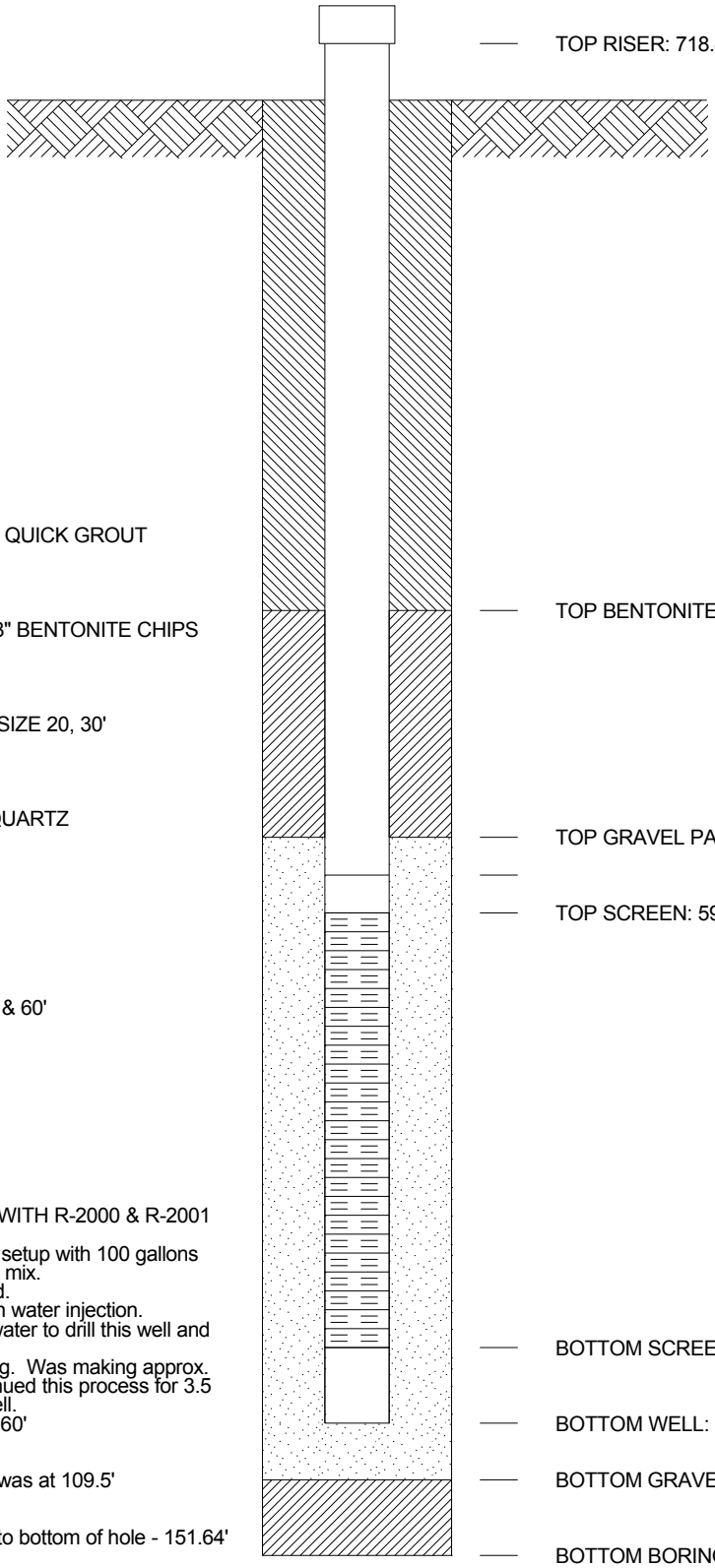
COMPANY _____ WELL No. **R-2000** BORING No. **R-2000** INSTALLED **2/10/00**

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 348,126.9 E 2,104,157.6**

SYSTEM **State Plane using NADA27**

GROUND ELEVATION 716.68 FT.



GROUT SEAL: 250 GALLONS QUICK GROUT

BENTONITE SEAL: 150 lbs 3/8" BENTONITE CHIPS

SCREEN: 2" dia., PVC, SLOT SIZE 20, 30'

GRAVEL PACK: 1050 lbs #4 QUARTZ

RISER PIPE: 2", dia., PVC

SPACERS, DEPTH: 130', 115' & 60'

Notes:
THIS IS A CLUSTERED SITE WITH R-2000 & R-2001

Deconned rig and tools prior to setup with 100 gallons potable water and alconox mix.
Water source was G-5 belthead.
Used 8" downhole hammer with water injection.
Used approx. 1500 gallons of water to drill this well and flush clean.
Used compressor to flush boring. Was making approx. 12 gallons/minute. Continued this process for 3.5 hours prior to installing well.
Spider spacers at 130', 115', & 60'
Seal hydrated by drill crew.

SWL at installation on 2/17/00 was at 109.5'
SWL at 129.2' on 2/23/00

Measurement from top of pipe to bottom of hole - 151.64'

GEOMCNST R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY AMERICAN ELECTRIC POWER

PROJECT GAVIN LANDFILL

COORDINATES N 348,126.9 E 2,104,157.6

GROUND ELEVATION 716.7 SYSTEM State Plane using NADA27

WATER LEVEL	▽	▼	▼
TIME			
DATE			

BORING NO. R-2000 DATE 7/14/00 SHEET 1 OF 4

BORING START 1/18/00 BORING FINISH 2/10/00

PIEZOMETER TYPE SS WELL TYPE OW

HGT. RISER ABOVE GROUND 1.75 DIA 2"

DEPTH TO TOP OF WELL SCREEN 119.6 BOTTOM 148.6

WELL DEVELOPMENT BACKFILL

FIELD PARTY TJH/REB RIG CME-75

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	2.7	4.2	4-6-10	1.3		5		SP	BROWN FINE GRAIN SAND Fill Material, Dry		
2	SS	7.7	9.2	5-8-11	1.4		10		CL	GRAY SILTY CLAY Fill Material, Dry		
3	SS	12.7	14.2	10-12-18	1.3		15			DARK GRAY WEATHERED CLAY SHALE Fill Material		
4	SS	17.7	18.2	50/.5	0.5	0				GRAY WEATHERED CLAY SHALE Random Fill, Dry		Auger refusal at 18.3'; started coring.
5	NQ-2	18.3	20.0		0.6		20			N5 MEDIUM GRAY LIMESTONE Broken up		
6	NQ-2	20.0	25.0		5.0	68				N6 MEDIUM LIGHT GRAY WEATHERED CLAY SHALE With limestone nodules		
7	NQ-2	25.0	32.7		2.5	72	25					
8	NQ-2	32.7	35.0		1.9	37	30			RED & GRAY CLAY SHALE		
9	NQ-2	35.0	40.0		3.9	77	35			N6 MEDIUM LIGHT GRAY SHALE		
10	NQ-2	40.0	45.0		5.0	74	40			N6 MEDIUM LIGHT GRAY SANDY SHALE		
11	NQ-2	45.0	50.0		4.5	44	45			N6 MEDIUM LIGHT GRAY CLAY SHALE N6 MEDIUM LIGHT GRAY SANDY SHALE N6 MEDIUM LIGHT GRAY CLAY SHALE N6 MEDIUM LIGHT GRAY SANDY SHALE Vertical crack & iron stain 44.0'-44.8' N6 MEDIUM LIGHT GRAY CLAY SHALE N6 MEDIUM LIGHT GRAY SANDY SHALE		

Continued Next Page

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER REB

JT 7/14/00

AEP GAVINLF.GPJ

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY AMERICAN ELECTRIC POWER

PROJECT GAVIN LANDFILL

BORING NO. R-2000 DATE 7/14/00 SHEET 2 OF 4

BORING START 1/18/00 BORING FINISH 2/10/00

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
12	NQ-2	50.0	55.0		3.0	0				Vertical crack, iron stain and partial water loss at 49.0'		Drill tool malfunction
										RED & GRAY CLAY SHALE		
13	NQ-2	55.0	60.0		3.5	0	55			5R 4/2 GRAYISH RED CLAY SHALE		
14	NQ-2	60.0	65.0		4.7	77	60					
										N6 MEDIUM LIGHT GRAY SANDY SHALE		
15	NQ-2	65.0	70.0		4.9	61	65			N6 MEDIUM LIGHT GRAY SANDSTONE Shaley		At 65', cored into a loose sand with some pore pressure (flushing boring)
										N6 MEDIUM LIGHT GRAY CLAY SHALE		
16	NQ-2	70.0	75.0		4.2	29	70			RED & GRAY CLAY SHALE		No water return
17	NQ-2	75.0	85.0		9.2	50	75			N6 MEDIUM LIGHT GRAY WEATHERED CLAY SHALE Badly broken		
							80			5GY 4/1 DARK GREENISH GRAY CLAY SHALE Not weathered		
										REDDISH to MULTI COLORED CLAY SHALE		
18	NQ-2	85.0	94.5		5.6	48	85			5R 4/2 GRAYISH RED SHALE With limestone nodules throughout		
							90					
19	NQ-2	94.7	100.0		4.2	50	95			5R 4/2 GRAYISH RED SHALE Weathered & broken		
20	NQ-2	100.0	105.0		2.7	0	100					
21	NQ-2	105.0	110.0		3.9	31	105			5R 4/2 GRAYISH RED CLAYSTONE Broken, but hard in places		No water return
22	NQ-2	110.0	115.0		5.0	42	110			HARD REDDISH to MULTI COLORED CLAY SHALE Limestone nodules throughout		

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY AMERICAN ELECTRIC POWER

PROJECT GAVIN LANDFILL

BORING NO. R-2000 DATE 7/14/00 SHEET 3 OF 4

BORING START 1/18/00 BORING FINISH 2/10/00

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
23	NQ-2	115.0	125.0		10.0	50				5R 4/2 GRAYISH RED CLAYSTONE N6 MEDIUM LIGHT GRAY SANDY SHALE Morgantown 5R 4/2 GRAYISH RED SHALE With limestone nodules and red claystone		
							120					
24	NQ-2	125.0	135.0		10.0	78	125			5R 4/2 GRAYISH RED CLAYSTONE		
							130			N6 MEDIUM LIGHT GRAY SANDY SHALE (132.7'-134.1' Morgantown)		
25	NQ-2	135.0	138.9		3.9	50	135			N6 MEDIUM LIGHT GRAY CLAY SHALE 5R 4/2 GRAYISH RED CLAYSTONE		No water return
26	NQ-2	138.9	145.0		6.0	70	140			N6 MEDIUM LIGHT GRAY LIMESTONE N6 MEDIUM LIGHT GRAY CLAY SHALE Medium hardness		
27	NQ-2	145.0	148.3		2.9	17	145			5R 4/2 GRAYISH RED CLAYSTONE		
28	NQ-2	148.3	155.0		5.5	27	150			5R 4/2 GRAYISH RED CLAYSTONE With limestone nodules & lenses throughout		
29	NQ-2	155.0	160.0		3.6	19	155			RED & BROWN SHALE Badly broken		No water return
30	NQ-2	160.0	165.0		3.1	0	160			5R 4/2 GRAYISH RED CLAY SHALE Broken up		SWL at 119.7' on 2/7/00; static over weekend
31	NQ-2	165.0	170.0		2.0	0	165			RED, BROWN & GRAY (MULTI COLORED) CLAYSTONE		Pulled rods, pumped hole full with Quick grout, trying to keep rods from chattering.
32	NQ-2	170.0	175.0		4.2	55	170			5R 4/2 GRAYISH RED CLAYSTONE N5 MEDIUM GRAY CLAYSTONE		No water return
33	NQ-2	175.0	180.0		5.0	30	175			N5 MEDIUM GRAY CLAY SHALE With limestone nodules		

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY AMERICAN ELECTRIC POWER

PROJECT GAVIN LANDFILL

BORING NO. R-2000 DATE 7/14/00 SHEET 4 OF 4

BORING START 1/18/00 BORING FINISH 2/10/00

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
34	NQ-2	180.0	185.0		2.5	44				RED & GRAY CLAY SHALE Limestone nodules		
35	NQ-2	185.0	190.0		4.2	0	185			5R 3/4 DUSKY RED CLAY SHALE Badly broken		
36	NQ-2	190.0	195.0				190			RED & GRAY CLAY SHALE		SWL at 61.5' on 2/9/2000 No water return
										N5 MEDIUM GRAY SANDY CLAY SHALE Limestone nodules		
37	NQ-2	195.0	200.0		5.0	84	195			N5 MEDIUM GRAY CLAY SHALE Hard		
38	NQ-2	200.0	210.0		9.0	91	200					No water return
							205					
39	NQ-2	210.0	215.0		5.0	60	210					
40	NQ-2	215.0	217.4		1.4	64	215					
41	NQ-2	217.4	219.0		1.6	75			CL	CLAY SEAM at 217.0'-217.3'		
42	NQ-2	219.0	224.0		4.0	23			CL	CLAY SEAM at 218.8'-219.0'		
							220			RED, GRAY & BROWN CLAY SHALE		Bottom of boring at 224.0' Used approx. 6000 gallons of water to core this boring.

AEP GAVINLF.GPJ AEP.GDT 7/14/00

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 348,513.9 E 2,103,918.7**

GROUND ELEVATION **724.2** SYSTEM **State Plane using NADA27**

Water Level, ft	▽	▼	▼
TIME			
DATE			

BORING NO. **R-2002** DATE **11/24/10** SHEET **1** OF **10**

BORING START **2/7/00** BORING FINISH **2/19/00**

PIEZOMETER TYPE **SS** WELL TYPE **OW**

HGT. RISER ABOVE GROUND **1.85** DIA **2"**

DEPTH TO TOP OF WELL SCREEN **193.6** BOTTOM **232.6**

WELL DEVELOPMENT BACKFILL

FIELD PARTY **MCR/PK** RIG **BK-81**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	1.7	3.2	6-7-8	1.4				SP	**LIGHT BROWN FINE to MEDIUM GRAIN SAND** With some 1/2" size fragments, dry		Deconned rig and tools at G-5 belt head using Leading Creek potable water and liqui-nox before drilling. Used Leading Creek potable water for drilling.
2	SS	6.7	8.2	5-6-6	1.5		5					
3	SS	11.7	13.2	13-13-15	1.4		10		SP	**GRAY to BROWN MEDIUM GRAIN SANDSTONE FRAGMENTS** Dry		
4	SS	16.7	18.2	7-8-10	1.5		15		SP	**BROWN FINE to MEDIUM GRAIN SAND** Dry		

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **MCR**

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **2** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
5	SS	21.7	23.2	8-10-9	1.4		25		SP	**GRAY to BROWN FINE to MEDIUM GRAIN SAND** With approx 50% of sample being fragments, dry		
6	SS	26.7	28.2	6-7-30	1.5				SP	**GRAY FINE to MEDIUM GRAIN SAND** Some brown, with approx 50% of sample being fragments, dry		
7	SS	31.7	33.2	10-11-14	1.4		30					
8	SS	36.7	38.2	16-22-22	1.4		35					
9	SS	41.7	43.2	9-21-32	1.5		40		SP	**LIGHT to MEDIUM BROWN MEDIUM GRAIN SANDSTONE FRAGMENTS** With fine grain sand layers		
10	SS	44.1	45.6	8-8-11	1.5		45			**BROWN STIFF CLAY with COAL, SANDSTONE FRAGMENTS, & GRAVEL MINE SPOIL** Dry		Started adding drilling mud inside of augers at 43.2' to help with drilling.

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **3** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
11	SS	46.7	48.2	8-9-12	1.5							
12	SS	51.7	53.2	9-11-10	1.5		50					
13	SS	56.7	58.2	8-12-11	1.5		55					
14	SS	61.7	63.2	9-13-19	1.5		60		CL	**RED SHALEY CLAY**		
15	SS	66.7	67.4	28-50/.2	0.6		65			**RED CLAY SHALE**		
16	SS	68.9	69.0	50/0	0	63				**10YR 7/4 GRAYISH ORANGE CLAY SHALE** Soft		Drilling to this point was using 6.25"HSA. Pulled HSA's and installed 6" SW casing. Cleaned inside of casing with 6" roller bit.
17	NQ-2	69.0	74.8		6.2		70			**N7 LIGHT GRAY FINE GRAIN SANDSTONE** Hard		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **4** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										10R 6/2 PALE RED CLAY SHALE		
18	NQ-2	74.8	79.8		3.6	33	75			**10R 5/4 PALE REDDISH BROWN CLAY SHALE**		
										N6 MEDIUM LIGHT GRAY CLAY SHALE		
19	NQ-2	79.8	84.8		5.8	78	80			**5B 7/1 LIGHT BLUISH GRAY CLAY SHALE**		
										5G 6/1 GREENISH GRAY CLAY SHALE		
20	NQ-2	84.8	90.8		6.5	66	85			**10YR 6/2 PALE OLIVE CLAY SHALE** Medium hard		SWL at 9.8' on 2/15/00 at 7:30AM; NQ hole depth at 84.8'
										10R 6/2 PALE RED CLAY SHALE Medium to hard		
21	NQ-2	90.8	94.8		1.7	24	90			**10R 6/2 PALE RED CLAY SHALE** Soft to medium hard		
22	NQ-2	94.8	97.3		1.0	60	95					
23	NQ-2	97.3	98.3		0.6	0						

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **5** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
24	NQ-2	98.3	103.3		1.0	0						Used 2000 gallons of water to this point - 98.3'
							100					
25	NQ-2	103.3	108.3		4.2	95						
							105					
26	NQ-2	108.3	114.8		7.1	76						
							110					
27	NQ-2	114.8	117.8		3.0	80	115			**10R 6/2 PALE RED CLAY SHALE** Soft to medium hard, slightly weathered		
28	NQ-2	117.8	125.0		7.4	9				**CLAY SHALE** Badly broken, medium hard		SWL at 16.8' on 2/16/00 at 7:30 am; NQ hole to 117.8'
							120					
										SILTY FINE GRAIN SANDSTONE Hard		
										5R 6/2 PALE RED CLAY SHALE Medium hard, badly broken		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **6** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							125					
29	NQ-2	125.0	130.0		4.5	56				**5R 5/4 MODERATE RED CLAY SHALE**		
										N7 LIGHT GRAY CLAY SHALE		
30	NQ-2	130.0	140.0		9.6	22	130			**5R 5/4 MODERATE RED CLAY SHALE** Medium to hard		
										5B 7/1 GRAY SILTY CLAY SHALE		
							135			**REDDISH CLAY SHALE** Medium to hard		
										GRAY SILTY CLAY SHALE Hard		
31	NQ-2	140.0	145.0		4.7	55	140			**5B 7/1 LIGHT BLUISH GRAY FINE GRAIN SILTY SANDSTONE**		
										5R 5/4 MODERATE RED CLAY SHALE		
32	NQ-2	145.0	155.0		8.8	15	145					Used 5000 gallons of water to this point - 145'
										5B 7/1 LIGHT BLUISH GRAY CLAY SHALE Medium hard		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **7** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							155					
33	NQ-2	155.0	159.0		4.6	61				**5R 5/4 MODERATE RED CLAY SHALE** Medium hard		
34	NQ-2	159.0	165.0		5.0	36	160			**5Y 5/2 LIGHT OLIVE GRAY CLAY SHALE** Soft		
							165					
35	NQ-2	165.0	170.0		4.8	17				**5R 6/2 PALE RED CLAY SHALE** Soft		
36	NQ-2	170.0	174.0		2.9	28	170			**5R 5/4 MODERATE RED CLAY SHALE** Soft		
37	NQ-2	174.0	180.0		5.1	55	175					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **8** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							180					
38	NQ-2	180.0	190.0		9.7	29				**10R 6/2 PALE RED CLAY SHALE** Hard		
							185			**5B 7/1 LIGHT BLUISH GRAY CLAY SHALE** Hard		
										10R 6/2 PALE RED CLAY SHALE Hard		
39	NQ-2	190.0	196.5		5.3	58	190			**10R 6/2 PALE RED CLAY SHALE** Soft		
							195					
40	NQ-2	196.5	205.0		8.2	56				**5B 5/1 MEDIUM BLUISH GRAY FINE GRAIN SANDY SILTSTONE** Hard		
							200					

AEP R1R2.GPJ AEP.GDT 11/24/10

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

BORING NO. **R-2002** DATE **11/24/10** SHEET **9** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
41	NQ-2	205.0	213.5		8.4	81	205					SWL at 18.7' on 2/19/00 at 7:30am - NQ hole to 205'
42	NQ-2	213.5	223.5		10	76	210					
43	NQ-2	223.5	233.5		9.9	69	215					
							220					
							225					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-2002** DATE **11/24/10** SHEET **10** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/7/00** BORING FINISH **2/19/00**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
								× × × ×				
										10R 4/6 MODERATE REDDISH BROWN CLAY SHALE Medium hard		
							230					Stopped boring at 233.5' on 2/19/00. Used approx. 10,000 gallons of water to drill hole. Monitoring well to be installed at a later date.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER _____

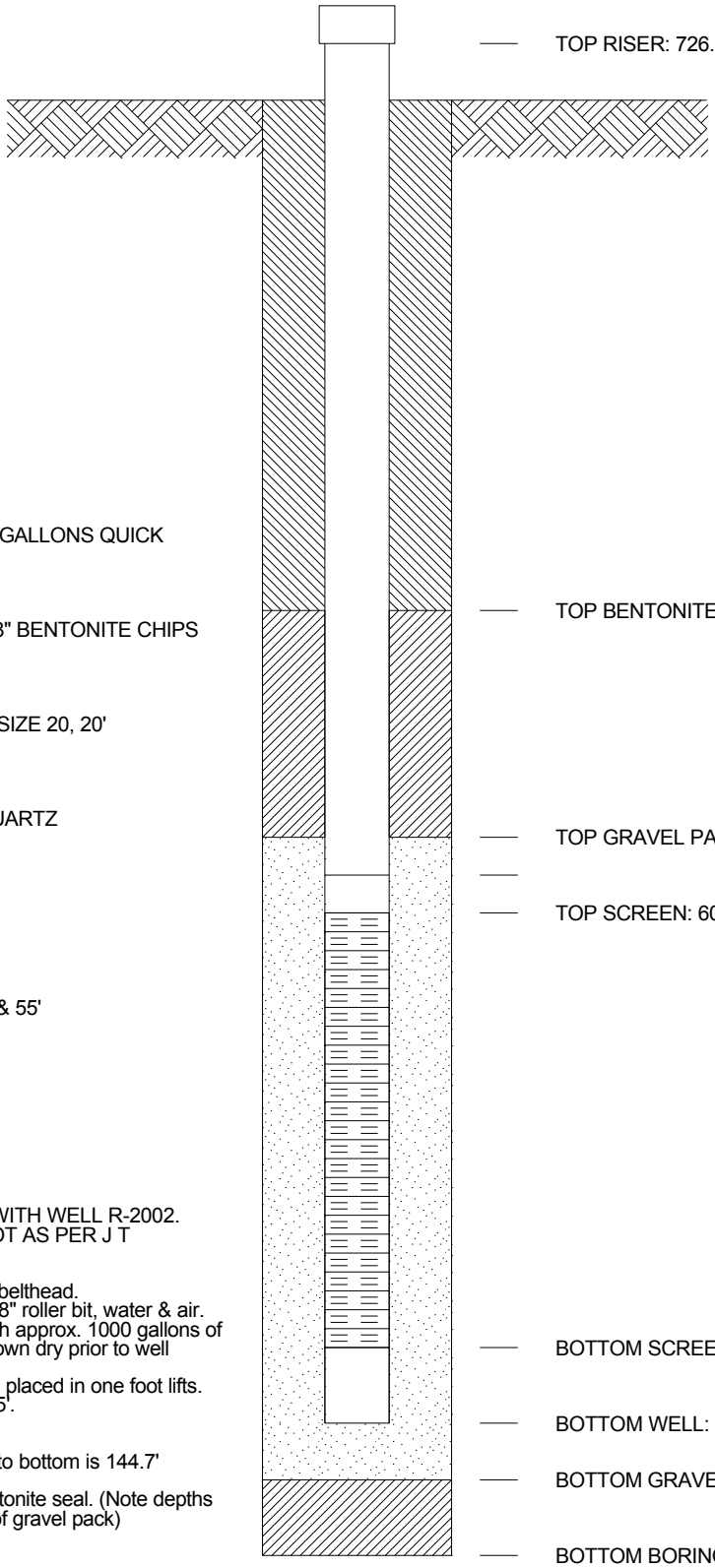
COMPANY _____ WELL No. **R-2003** BORING No. **R-2003** INSTALLED **3/7/00**

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 348,517.2 E 2,103,917.1**

SYSTEM **State Plane using NADA27**

GROUND ELEVATION 724.28 FT.



GROUT SEAL: APPROX. 200 GALLONS QUICK GROUT

BENTONITE SEAL: 100 lbs 3/8" BENTONITE CHIPS

SCREEN: 2" dia., PVC, SLOT SIZE 20, 20'

GRAVEL PACK: 550 lbs #4 QUARTZ

RISER PIPE: 2", dia., PVC

SPACERS, DEPTH: 135', 85', & 55'

Notes:
THIS WELL IS CLUSTERED WITH WELL R-2002.
THIS INSTALLATION WAS NOT AS PER J T MASSEY-NORTON

Potable water supply from G-5 belthead.
This well was drilled with a 5 7/8" roller bit, water & air.
The well boring was flushed with approx. 1000 gallons of potable water and then blown dry prior to well installation.
Bentonite seal was hydrated as placed in one foot lifts.
Spider spacers at 135', 85' & 55'.

SWL at installation was at 142'
Measurement from top of pipe to bottom is 144.7'

**5.3' of screen exposed to bentonite seal. (Note depths on top of screen and top of gravel pack)

GEOMCNST R1R2.GPJ AEP.GDT 11/24/10

ERM
1 Beacon Street; 5th Floor
Boston, MA 02108
Telephone: +1 (617) 646-7800

WELL 2018-01

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342
Project Location: Cheshire, OH

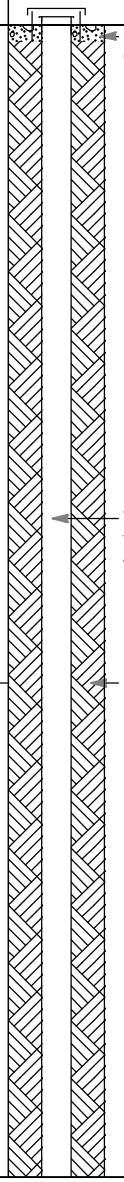
DATE STARTED: 11/27/2018
DATE COMPLETED: 12/5/2018
DRILLING CONTRACTOR: Terracon
DRILLING METHODS: Mud Rotary/ Rock Coring
LOGGED BY: R. Baisden
CHECKED BY: H. Usle
NOTES: Additional drilling and formation water removed during drawdown test prior to well installation.

TOTAL DEPTH: 260 feet bgs
DIAMETER: 4 inches
GROUND ELEVATION: 735 feet amsl (approx.)
PVC ELEVATION: 735.78 feet amsl
NORTHING: 345328.751
EASTING: 2104378.726

WELL DEVELOPMENT
METHOD(S): Pump
DATE STARTED: 03/01/2019
DATE ENDED: 09/05/2019
DTW AT START: NM
DTW AT END: NM
VOLUME PURGED: 90 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
5	730				CL-ML		Dark Brown, CLAY AND SILT, fine-grained.	
10	725	MR	NA				10.0	NM
15	720							
20	715							
25	710						BEDROCK observed in drill cuttings.	
30	705	MR	NA					NM
35	700							

WELL DIAGRAM



SAMPLE TYPE
- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND
amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PID = photoionization detector
ppm = parts per million
PVC = polyvinyl chloride

ERM
1 Beacon Street; 5th Floor
Boston, MA 02108
Telephone: +1 (617) 646-7800

WELL 2018-01

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
40	695								
45	690								
50	685	MR	NA				BEDROCK observed in drill cuttings. *(continued)*	NM	Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
55	680								Bentonite Grout Seal
60	675								
65	670								
70	665	MR	NA					NM	
75	660								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PID = photoionization detector
ppm = parts per million
PVC = polyvinyl chloride

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1 Beacon Street; 5th Floor
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Telephone: +1 (617) 646-7800

WELL 2018-01

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	655								
85	650								
90	645	MR	NA				BEDROCK observed in drill cuttings. *(continued)*	NM	Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
95	640								Bentonite Grout Seal
100	635								
105	630								
110	625	MR	NA					NM	
115	620								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PID = photoionization detector
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WELL 2018-01

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	615								
125	610								
130	605	MR	NA					NM	
135	600						BEDROCK observed in drill cuttings. *(continued)*		Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
140	595								Bentonite Grout Seal
145	590								
150	585	MR	NA					NM	
155	580								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

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WELL 2018-01

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
160	575								
165	570								Well Riser (to 235 feet bgs) (2" SCH 40 PVC)
170	565	MR	NA					NM	Bentonite Grout Seal
175	560								
180	555						BEDROCK observed in drill cuttings. *(continued)*		
185	550								
190	545	MR	NA					NM	
195	540								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

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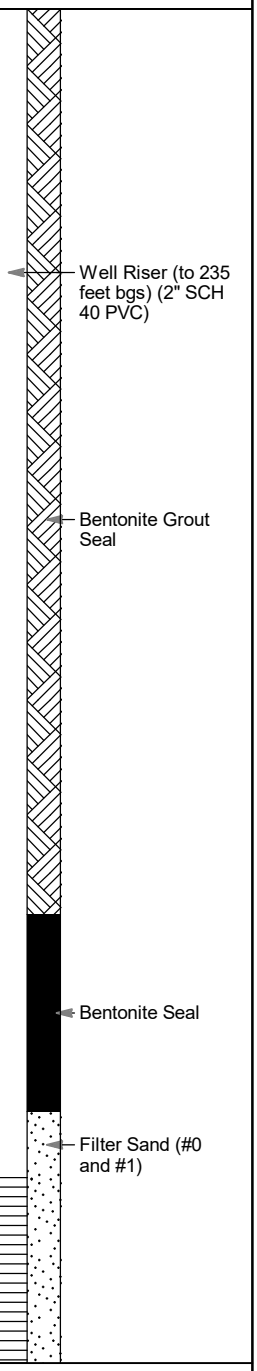
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WELL 2018-01

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
200	535								
205	530								
210	525	MR	NA				BEDROCK observed in drill cuttings. *(continued)*	NM	
215	520								
220	515						220.0		
225	510	RC (1)	36	0				NM	
230	505	RC (2)	44	0			Round Knob, Red Brown, MUDSTONE, fine-grained, laminated, moderate to weak, moderately disintegrated, moderately decomposed to fresh, conformable.	NM	
235	500	RC (3)	15	0			235.0	NM	
240	495	RC (4)	117	42			Cow Run, Gray To Light Gray, SANDSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable, silt interbeds, silt content increasing with depth, pyrite mineralization from 235 to 236 feet bgs, fracture at 237.5 feet bgs.	NM	



SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

amsl = above mean sea level
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WELL 2018-01

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
245	490								Well Screen (235 to 255 feet bgs) (2" SCH 40 PVC/ 0.01 slot)
250	485	RC (5)	114	43			Cow Run, Gray To Light Gray, SANDSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable, silt interbeds, silt content increasing with depth, pyrite mineralization from 235 to 236 feet bgs, fracture at 237.5 feet bgs. *(continued)*	NM	
255	480						255.5		Sump
260	475	RC (6)	60	0			Gray To Red Brown, SILTSTONE, fine-grained, laminated, weak, slightly decomposed, slightly disintegrated, conformable. 260.0	NM	
							Bottom of Boring @ 260.00 feet bgs		
265	470								
270	465								
275	460								
280	455								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

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WELL 2018-02

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342
Project Location: Cheshire, OH

DATE STARTED: 10/10/2018
DATE COMPLETED: 10/24/2018
DRILLING CONTRACTOR: Terracon
DRILLING METHODS: Mud Rotary/ Rock Coring
LOGGED BY: R. Baisden
CHECKED BY: H. Usle
NOTES: Additional drilling and formation water removed during drawdown test prior to well installation.

TOTAL DEPTH: 195 feet bgs
DIAMETER: 4 inches
GROUND ELEVATION: 755 feet amsl (approx.)
PVC ELEVATION: 757.32 feet amsl
NORTHING: 345708.471
EASTING: 2104765.115

WELL DEVELOPMENT
METHOD(S): Bailer
DATE STARTED: 11/6/2018 11:20:00 AM
DATE ENDED: 11/6/2018 12:15:00 PM
DTW AT START: 182.03 feet bgs
DTW AT END: 182.19 feet bgs
VOLUME PURGED: 6 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
5	750				CL-ML		Dark Brown, CLAY AND SILT, fine-grained.	
10	745	MR	NA					NM
							11.5	
15	740						Pomeroy, Light Brown, SANDSTONE, fine- to medium-grained, massive, strong, fresh, conformable.	
							18.0	
20	735						Pomeroy, Gray, SILTSTONE, trace fine sand, fine-grained, thinly bedded, moderate, fresh, conformable.	
25	730						25.0	
30	725	MR	NA				Pomeroy, COAL, fine-grained, thinly bedded, moderate, fresh, conformable, organic-rich laminated coal beds.	NM
							32.0	
35	720						Pomeroy, Gray To Light Brown, SANDSTONE, fine-grained, thin to medium bedded, strong, fresh, conformable.	
							35.0	

WELL DIAGRAM:
- Concrete Pad and 6" Aluminum Stickup Protective Casing
- Well Riser (to 182 feet bgs) (2" SCH 40 PVC)
- Bentonite Grout Seal

SAMPLE TYPE
- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- Silty Clay
- Sandstone
- Siltstone
- Coal
- Shale
- Limestone

ACRONYM LEGEND
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PID = photoionization detector
ppm = parts per million
PVC = polyvinyl chloride

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WELL 2018-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
40	715						Pomeroy, Gray To Light Brown, SANDSTONE, fine-grained, thin to medium bedded, strong, fresh, comfortable, gray to black silt and clay crossbeds. *(continued)*		
							40.0		
							Pomeroy, Dark Gray, CLAYSTONE, fine-grained, thinly bedded, moderate, fresh, conformable, micaceous.		
							42.0		
45	710						Pomeroy, Gray, SANDSTONE, some silt, fine to medium grained, thinly bedded, strong, fresh, conformable.		
							49.0		
50	705	MR	NA				Pomeroy, Black, SHALE, fine-grained, laminated, moderate, fresh, conformable.	NM	Well Riser (to 182 feet bgs) (2" SCH 40 PVC)
							49.8		
							Pomeroy, Black, COAL, weak, fresh, conformable.		
							52.0		
55	700								Bentonite Grout Seal
60	695								
65	690						Pittsburg Undifferentiated Units, Dark Gray To Gray, SHALE, fine-grained, laminated, moderate, fresh, conformable, 2-4" coal seams at 60 and 68 feet bgs, transtions to organic-rich shale with nodules at 70 feet bgs.		
70	685	MR	NA					NM	
75	680						75.0		
							Pittsburg, Gray, LIMESTONE, fine-grained, massive, moderate, fresh, conformable.		

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Sandstone
- Siltstone
- Coal
- Shale
- Limestone

ACRONYM LEGEND

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WELL 2018-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	675						Pittsburg, Gray, LIMESTONE, fine-grained, massive, moderate, fresh, conformable. *(continued)*		
							80.0		
85	670						Pittsburg Undifferentiated Units, Dark Red, MUDSTONE, fine-grained, thinly bedded, weak, fresh, conformable.		
							88.0		
90	665	MR	NA				Pittsburg Undifferentiated Units, Gray To Dark Gray, SHALE, fine-grained, thinly bedded, strong, fresh, conformable, nodules of limestone from 90 to 95 feet bgs, 5-10 mm pyrite inclusions from 95 to 97.5 feet bgs.	NM	Well Riser (to 182 feet bgs) (2" SCH 40 PVC)
95	660								Bentonite Grout Seal
							97.5		
100	655						Connellsville, Gray To Light Gray, SANDSTONE, fine-grained, thickly bedded, strong, fresh, conformable, clay interbeds.		
							103.0		
105	650						Connellsville, Dark Gray, SILTSTONE, fine-grained, laminated, moderate to strong, slightly decomposed, conformable.		
110	645	MR	NA					NM	
115	640						115.0		
							Connellsville, Gray, LIMESTONE, fine-grained, massive, moderate, fresh, conformable.		
							116.0		
							Connellsville, Gray, SANDSTONE, fine-grained, thickly bedded, strong, fresh, conformable, clay interbeds.		

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Sandstone
- Siltstone
- Coal
- Shale
- Limestone

ACRONYM LEGEND

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WELL 2018-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	635						Connellsville, Gray, SANDSTONE, fine-grained, thickly bedded, strong, fresh, conformable, clay interbeds. *(continued)*		
							121.0		
125	630						Connellsville, Dark Red, MUDSTONE, fine-grained, thinly bedded, moderate, fresh, conformable.		
							126.0		
130	625	MR	NA				Connellsville, Gray, SANDSTONE, fine-grained, thinly bedded, strong, fresh, conformable, clay interbeds, micaceous.	NM	
							130.0		
135	620						Connellsville, Dark Gray, LIMESTONE, fine-grained, massive, strong, slightly decomposed, slightly disintegrated, conformable, inclusions.		
							135.0		Well Riser (to 182 feet bgs) (2" SCH 40 PVC)
140	615								Bentonite Grout Seal
145	610								
150	605	MR	NA				Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, gravel and sand inclusions from 162 to 164 feet bgs.	NM	
155	600								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Sandstone
- Siltstone
- Coal
- Shale
- Limestone

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WELL 2018-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
160	595								
165	590	RC (1)	54	50			Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, gravel and sand inclusions from 162 to 164 feet bgs. *(continued)*	NM	Well Riser (to 182 feet bgs) (2" SCH 40 PVC)
170	585	RC (2)	50	7				NM	Bentonite Grout Seal
175	580	RC (3)	55	13				NM	
180	575	RC (4)	113	58				NM	Bentonite Seal
182.5									Filter Sand (#0 and #1)
185	570						Morgantown, Dark Gray, SANDSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable, silt bands near 182.5 feet bgs, silt decreases with depth, micaceous, pyrite inclusions from 187 to 187.8 feet bgs, fracture at 183 feet bgs.		
188.5									Well Screen (182 to 192 feet bgs) (2" SCH 40 PVC/ 0.01 slot)
190	565	RC (5)	113	77				NM	
194.5							Morgantown, Gray To Red Brown, SILTSTONE, trace fine sand, fine-grained, thinly bedded, moderate, fresh to slightly decomposed, conformable.		Sump
195	560								
195.0							Round Knob, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable.		
							Bottom of Boring @ 195.00 feet bgs		

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Sandstone
- Siltstone
- Coal
- Shale
- Limestone

ACRONYM LEGEND

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WELL 2018-03

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342
Project Location: Cheshire, OH

DATE STARTED: 10/31/2018
DATE COMPLETED: 11/19/2018
DRILLING CONTRACTOR: Terracon
DRILLING METHODS: Mud Rotary/ Rock Coring
LOGGED BY: R. Baisden
CHECKED BY: H. Usle
NOTES: Additional drilling and formation water removed during drawdown test prior to well installation.

TOTAL DEPTH: 226 feet bgs
DIAMETER: 4 inches
GROUND ELEVATION: 706.81 feet amsl (approx.)
PVC ELEVATION: 708.81 feet amsl
NORTHING: 346131.471
EASTING: 2105235.482

WELL DEVELOPMENT
METHOD(S): Bailer
DATE STARTED: 11/29/2018 9:00:00 AM
DATE ENDED: 11/29/2018 12:00:00 PM
DTW AT START: 200.74 feet bgs
DTW AT END: 222 feet bgs
VOLUME PURGED: 9 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
5	702				CL-ML		Dark Brown, CLAY AND SILT, fine-grained.	
							6.0	
10	697	MR	NA					NM
15	692							
20	687						BEDROCK observed in drill cuttings from 2018-04.	
25	682							
30	677	MR	NA					NM
35	672							

WELL DIAGRAM:
- Concrete Pad and 6" Aluminum Stickup Protective Casing
- Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
- Bentonite Grout Seal

SAMPLE TYPE
- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- Silty Clay
- Bedrock
- Mudstone
- Siltstone
- Sandstone
- Shale

ACRONYM LEGEND
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WELL 2018-03

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
40	667								
45	662								
50	657	MR	NA					NM	Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
55	652						BEDROCK observed in drill cuttings from 2018-04. *(continued)*		Bentonite Grout Seal
60	647								
65	642								
70	637	MR	NA					NM	
75	632								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Siltstone
- Sandstone
- Shale

ACRONYM LEGEND

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WELL 2018-03

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	627								
85	622								
90	617	MR	NA					NM	Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
95	612						BEDROCK observed in drill cuttings from 2018-04. *(continued)*		Bentonite Grout Seal
100	607								
105	602								
110	597	MR	NA					NM	
115	592								
							115.0 Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition and disintegration fluctuate throughout, more competent from 125 to 125.9 feet bgs,.		

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Siltstone
- Sandstone
- Shale

ACRONYM LEGEND

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WELL 2018-03

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	587								
							Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition and disintegration fluctuate throughout, more competent from 125 to 125.9 feet bgs,. *(continued)*		
125	582						125.9		
							Morgantown, Gray, SILTSTONE, some fine sand, fine-grained, thinly bedded, strong, fresh, conformable.		
							127.8		
							Morgantown, Red, SILTSTONE, fine-grained, thinly bedded, strong, fresh, conformable.		
							128.8		
130	577	MR	NA				Morgantown, Gray, SANDSTONE, with silt, fine-grained, thinly bedded, strong, fresh, conformable.	NM	
							132.5		
135	572						Round Knob, Reddish Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, pyrite inclusions from 135.5 to 139.5 feet bgs.		Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
140	567						139.5		Bentonite Grout Seal
145	562								
							Round Knob, Reddish Brown, SHALE, lithology inferred from cuttings.		
150	557	MR	NA					NM	
155	552								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Siltstone
- Sandstone
- Shale

ACRONYM LEGEND

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PID = photoionization detector
ppm = parts per million
PVC = polyvinyl chloride

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WELL 2018-03

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
160	547								
165	542								Well Riser (to 197 feet bgs) (2" SCH 40 PVC)
170	537	MR	NA				Round Knob, Reddish Brown, SHALE, lithology inferred from cuttings. *(continued)*	NM	Bentonite Grout Seal
175	532								
180	527								
185	522	MR	NA					NM	
190	517								
							191.0		
195	512	RC (1)	110	10			Round Knob, Reddish Brown, SHALE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, grayish green with pyrite inclusions from 191.3 to 195.8 feet bgs.	NM	Bentonite Seal Filter Sand (#0 and #1)
							197.8		
							Cow Run, Dark Gray To Green, SILTSTONE, some fine sand, fine-grained, thinly bedded, moderate to strong, fresh, conformable, fluctuating fine sand content with sand lenses throughout, pyrite inclusions from 215 to 216 feet bgs.		

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Siltstone
- Sandstone
- Shale

ACRONYM LEGEND

amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PID = photoionization detector
ppm = parts per million
PVC = polyvinyl chloride

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WELL 2018-03

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
200	507								
205	502	RC (2)	111	23			Cow Run, Dark Gray To Green, SILTSTONE, some fine sand, fine-grained, thinly bedded, moderate to strong, fresh, conformable, fluctuating fine sand content with sand lenses throughout, pyrite inclusions from 215 to 216 feet bgs. *(continued)*	NM	
210	497								Well Screen (197 to 222 feet bgs) (2" SCH 40 PVC/ 0.01 slot)
215	492	RC (3)	51	0			216.0	NM	
220	487	RC (4)	112	12			Dark Green, SILTSTONE, fine-grained, thinly bedded, moderate to strong, fresh, conformable. 221.5	NM	
225	482						Red Brown, SHALE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable. 226.0		Sump
230	477						*Bottom of Boring @ 226.00 feet bgs*		
235	472								
240	467								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Bedrock
- Mudstone
- Siltstone
- Sandstone
- Shale

ACRONYM LEGEND

amsl = above mean sea level
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NM = not measured
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WELL 2018-04

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0472342
Project Location: Cheshire, OH

DATE STARTED: 10/25/2018
DATE COMPLETED: 11/1/2018
DRILLING CONTRACTOR: Terracon
DRILLING METHODS: Mud Rotary/ Rock Coring
LOGGED BY: R.Baisden
CHECKED BY: H. Usle
NOTES: Additional drilling and formation water removed during drawdown test prior to well installation.

TOTAL DEPTH: 140 feet bgs
DIAMETER: 4 inches
GROUND ELEVATION: 704.38 feet amsl (approx.)
PVC ELEVATION: 708.18 feet amsl
NORTHING: 346141.386
EASTING: 2105235.044

WELL DEVELOPMENT
METHOD(S): Bailer
DATE STARTED: 11/29/2018 12:15:00 PM
DATE ENDED: 11/29/2018 12:45:00 PM
DTW AT START: 132.19 feet bgs
DTW AT END: 133.5 feet bgs
VOLUME PURGED: 4.5 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
5	699				CL-ML		Light Brown To Medium Brown, CLAY AND SILT, fine-grained.	
10	694	MR	NA				10.0	NM
							Black, COAL, observed in drill cuttings. 11.0	
15	689							
20	684							
25	679						Gray To Dark Gray, MUDSTONE, slightly silty, observed in drill cuttings.	
30	674	MR	NA					NM
							32.5	
35	669						Light Gray, SANDSTONE, medium-grained observed in drill cuttings.	

WELL DIAGRAM

- Concrete Pad and 6" Aluminum Stickup Protective Casing
- Well Riser (to 123.5 feet bgs) (2" SCH 40 PVC)
- Bentonite Grout Seal

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Coal
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

amsl = above mean sea level
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PID = photoionization detector
ppm = parts per million
PVC = polyvinyl chloride

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WELL 2018-04

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
							Light Gray, SANDSTONE, medium-grained observed in drill cuttings. *(continued)*		
							38.0		
40	664						Gray, SILTSTONE, medium sand lenses, observed in drill cuttings.		
							40.0		
45	659						Gray, SILTSTONE, observed in drill cuttings.		
50	654	MR	NA					NM	Well Riser (to 123.5 feet bgs) (2" SCH 40 PVC)
55	649						55.0		Bentonite Grout Seal
60	644						Red, MUDSTONE, observed in drill cuttings.		
							64.0		
65	639						SANDSTONE, fine to medium grained, observed in drill cuttings.		
							66.0		
70	634	MR	NA				Red Brown, MUDSTONE, drill slows down around 75 feet bgs, observed in drill cuttings.	NM	
75	629								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Coal
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

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WELL 2018-04

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
80	624						Red Brown, MUDSTONE, drill slows down around 75 feet bgs, observed in drill cuttings. *(continued)*		
							82.0		
85	619								
90	614	MR	NA					NM	Well Riser (to 123.5 feet bgs) (2" SCH 40 PVC)
95	609								Bentonite Grout Seal
100	604						Clarksburg, Red Brown, SILTSTONE, observed in drill cuttings.		
105	599								
		MR	NA					NM	
110	594								
115	589						115.0		
							Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, more competent from 125 to 125.9 feet bgs.		

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Coal
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

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WELL 2018-04

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0472342 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)	WELL DIAGRAM
120	584	RC (1)	55	30				NM	Bentonite Seal
125	579	RC (2)	45	35			Clarksburg, Red To Dark Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, decomposition fluctuates throughout, more competent from 125 to 125.9 feet bgs. *(continued)*	NM	Filter Sand (#0 and #1)
130	574	RC (3)	60	97			125.9 Morgantown, Gray, SILTSTONE, some fine sand, fine-grained, thinly bedded, strong, fresh, conformable. 127.8 Morgantown, Red, SILTSTONE, fine-grained, thinly bedded, strong, fresh, conformable. 128.8	NM	Well Screen (123.5 to 133.5 feet bgs) (2" SCH 40 PVC/ 0.01 slot)
135	569	RC (4)	58	88			Morgantown, Gray, SANDSTONE, with silt, fine-grained, thinly bedded, strong, fresh, conformable, unfractured. 132.5	NM	Sump
140	564	RC (5)	60	82			Round Knob, Reddish Brown, MUDSTONE, fine-grained, laminated, moderate, moderately disintegrated, moderately decomposed, conformable, pyrite inclusions from 135.5 to 139.5 feet bgs. 140.0	NM	
145	559						*Bottom of Boring @ 140.00 feet bgs*		
150	554								
155	549								

SAMPLE TYPE

- Mud Rotary
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- Silty Clay
- Coal
- Mudstone
- Sandstone
- Siltstone

ACRONYM LEGEND

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WELL 2019-02

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799
Project Location: Cheshire, OH

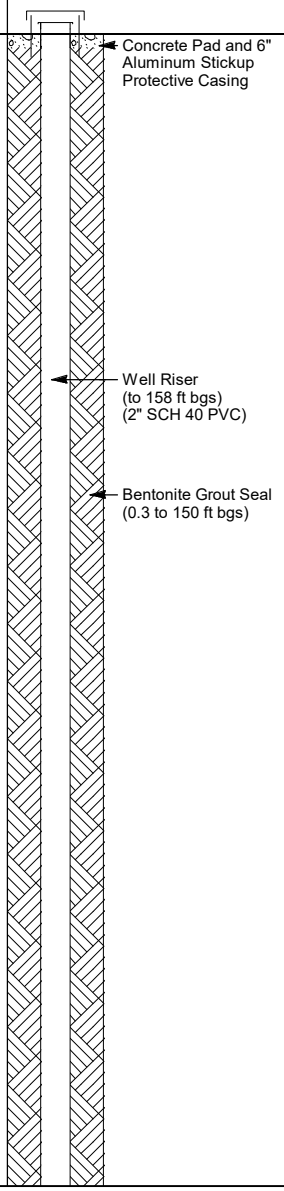
DATE STARTED: 2/14/2020
DATE COMPLETED: 2/20/2020
DRILLING CONTRACTOR: Frontz Drilling, Inc.
DRILLING METHODS: Sonic Drilling/ Rock Coring
LOGGED BY: L. Velasquez
CHECKED BY: H. Usle
NOTES: Steel casing (6") advanced to 148 ft bgs; 4" rock coring to termination depth.

TOTAL DEPTH: 178 ft bgs
DIAMETER: 4-6 inches
GROUND ELEVATION: 739.55 ft amsl (approx.)
PVC ELEVATION: 742.35 ft amsl
NORTHING: 345950.995
EASTING: 2101809.107

WELL DEVELOPMENT
METHOD(S): Air Lift, Grundfos & Buffalo Pump
DATE STARTED: 3/2/2020
DATE ENDED: 4/21/2020
DTW AT START: 29.9 ft bgs
DTW AT END: 141.4 ft bgs
VOLUME PURGED: 48.5 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
5	735	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs.
10	730						
15	725	SC					
20	720						
25	715						

WELL DIAGRAM



SAMPLE TYPE
- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND
amsl = above mean sea level
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U.S.C.S. = Unified Soil Classification System

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WELL 2019-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
30	710	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. *(continued)*	Well Riser (to 158 ft bgs) (2" SCH 40 PVC)
35	705	SC						
40	700							Bentonite Grout Seal (0.3 to 150 ft bgs)
45	695	SC						
50	690							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

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WELL 2019-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	685	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. *(continued)*	Well Riser (to 158 ft bgs) (2" SCH 40 PVC)
60	680							
65	675	SC						
70	670							Bentonite Grout Seal (0.3 to 150 ft bgs)
75	665	SC						
80	660							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

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WELL 2019-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
85	655	SC						
90	650							
95	645	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. *(continued)*	Well Riser (to 158 ft bgs) (2" SCH 40 PVC)
100	640							Bentonite Grout Seal (0.3 to 150 ft bgs)
105	635	SC						
110	630							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

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WELL 2019-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	625	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. *(continued)*	Well Riser (to 158 ft bgs) (2" SCH 40 PVC)
120	620							
125	615	SC						
130	610							Bentonite Grout Seal (0.3 to 150 ft bgs)
135	605	SC						
140	600							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

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WELL 2019-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
145	595	SC					Overburden and Bedrock logging not conducted from ground surface to 148 ft bgs. *(continued)*
							148.0
							NO RECOVERY.
							149.0
150	590						Reddish Brown, SANDSTONE TO SILTSTONE, fine-grained, moderate strength, 10% bedding planes. (Clarksburg), soft.
		RC (1)	108	68			153.0
							Grayish Green, SILTSTONE AND SANDSTONE, very fine-grained, interbedded, moderate strength, fresh, competent, 20% bedding planes at 154 ft bgs. (Morgantown), hard.
							154.5
155	585						Grayish Green, SANDSTONE, fine-grained, strong, healed fracture/joint observed at 155 ft bgs. (Morgantown).
							155.5
							Grayish Green, SILTSTONE AND SANDSTONE, interbedded, moderate strength, fresh, competent, 10% bedding planes. (Morgantown).
							157.0
							Grayish Green, SHALE, minor siltstone, moderate strength, (Morgantown), soft.
							158.0
160	580						NO RECOVERY.
							162.0
		RC (2)	72	35			Grayish Green, SANDSTONE, minor siltstone, fine-grained, interbedded, fresh, competent.
							164.0
165	575						Reddish Brown, SANDSTONE TO SILTSTONE, fine-grained, interbedded, moderate strength, soft.
							165.0
							Grayish Green, SANDSTONE, minor shale, fine-grained, interbedded, fresh, competent, hard.
							166.0
							Grayish Green, SHALE, minor siltstone, interbedded, moderate strength, soft.
							168.0
170	570						NO RECOVERY.

WELL DIAGRAM

- Bentonite Seal (150 to 156 ft bgs)
- Filter Sand (#0 and #1) (156 to 178 ft bgs)
- Well Screen (158 to 178 ft bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

amsl = above mean sea level
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WELL 2019-02

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	565	RC (3)	NR				NO RECOVERY. *(continued)*	Well Screen (158 to 178 ft bgs) (2" SCH 40 PVC/ 0.01" slot)
							178.0	End Cap
							Bottom of Boring @ 178.00 feet bgs	
180	560							
185	555							
190	550							
195	545							
200	540							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

amsl = above mean sea level
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WELL 2019-06

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799
Project Location: Cheshire, OH

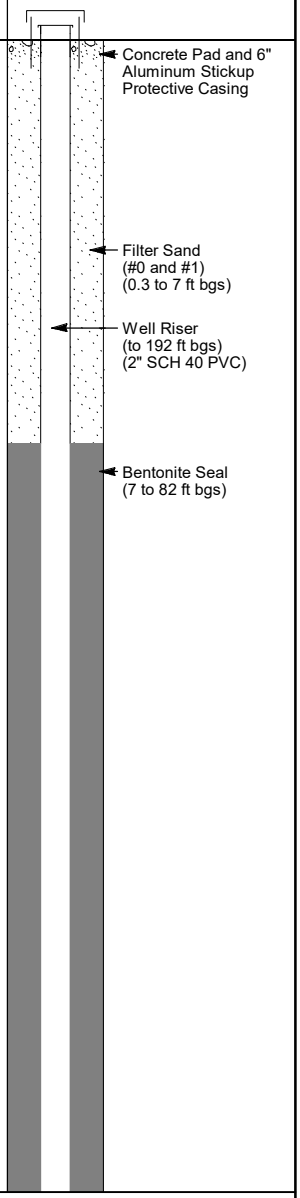
DATE STARTED: 1/20/2020
DATE COMPLETED: 1/28/2020
DRILLING CONTRACTOR: Frontz Drilling, Inc.
DRILLING METHODS: Sonic Drilling/ Rock Coring
LOGGED BY: L. Velasquez
CHECKED BY: H. Usle
NOTES: Steel casing (6") advanced to 178 ft bgs; 4" rock coring to termination depth.

TOTAL DEPTH: 228 ft bgs
DIAMETER: 4-6 inches
GROUND ELEVATION: 813.07 ft amsl (approx.)
PVC ELEVATION: 815.92 ft amsl
NORTHING: 347851.285
EASTING: 2100292.973

WELL DEVELOPMENT
METHOD(S): Air Lift, PVC Bailer
DATE STARTED: 3/5/2020
DATE ENDED: 5/22/2020
DTW AT START: 86.4 ft bgs
DTW AT END: 191.6 ft bgs
VOLUME PURGED: 33.5 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
5	808	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs.
10	803						
15	798	SC					
20	793						

WELL DIAGRAM



SAMPLE TYPE
- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND
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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
25	788	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 192 ft bgs) (2" SCH 40 PVC)
30	783							
35	778	SC						Bentonite Seal (7 to 82 ft bgs)
40	773							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	768	SC						
50	763							
55	758	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 192 ft bgs) (2" SCH 40 PVC)
60	753							Bentonite Seal (7 to 82 ft bgs)
65	748	SC						

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- SHALE Shale

ACRONYM LEGEND

amsl = above mean sea level
bgs = below ground surface
ft = feet
DTW = depth to water
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NM = not measured
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PVC = polyvinyl chloride
U.S.C.S. = Unified Soil Classification System

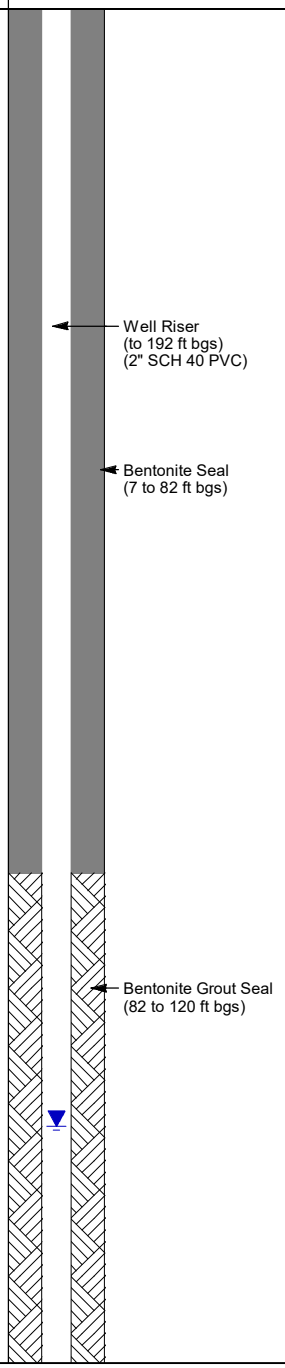
ERM
1 Beacon Street: 5th Floor
Boston, MA 02108
Telephone: +1 (617) 646-7800

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
70	743						
75	738	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*
80	733						
85	728	SC					
90	723						

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
95	718	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 192 ft bgs) (2" SCH 40 PVC)
100	713							
105	708	SC						Bentonite Grout Seal (82 to 120 ft bgs)
110	703							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	698	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 192 ft bgs) (2" SCH 40 PVC)
120	693							
125	688	SC						Bentonite Seal
130	683							
135	678	SC						

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	673							
145	668	SC						Well Riser (to 192 ft bgs) (2" SCH 40 PVC)
150	663						Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Bentonite Grout Seal (82 to 120 ft bgs)
155	658	SC						
160	653							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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- SHALE Shale

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
165	648	SC					Overburden and Bedrock logging not conducted from ground surface to 178 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	"Well Riser (to 192 ft bgs) (2"" SCH 40 PVC)"
170	643							
175	638	SC						Bentonite Grout Seal (82 to 120 ft bgs)
							178.0	
180	633						NO RECOVERY.	
							180.0	
		RC (1)	96	52			Reddish Brown, SANDSTONE TO SILTSTONE, with interbedded shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration, soft.	
							183.0	
							Grayish Green, SANDSTONE TO SILTSTONE, with interbedded shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration from 186 to 188 ft bgs, soft.	

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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- SHALE Shale

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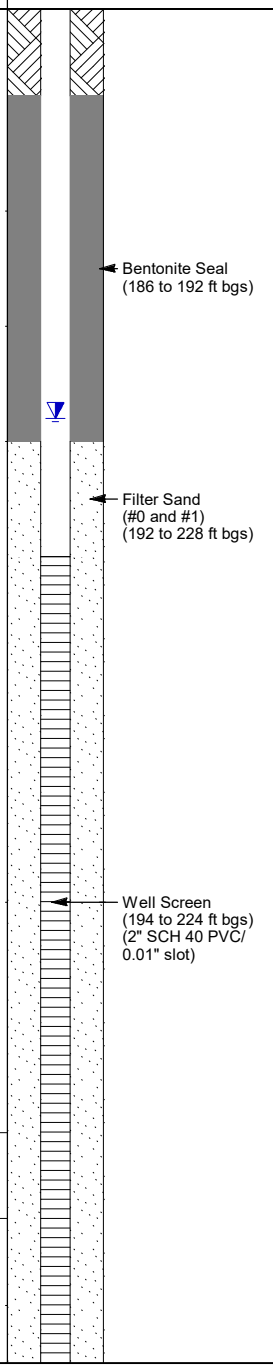
WELL 2019-06

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
185	628						Grayish Green, SANDSTONE TO SILTSTONE, with interbedded shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration from 186 to 188 ft bgs, soft. *(continued)*
							188.0
							NO RECOVERY.
190	623						190.0
							Reddish Brown, SANDSTONE TO SILTSTONE, with shale, fine-grained, weak to moderate strength, moderately decomposed, red and light green discoloration, soft.
							192.0
		RC (2)	96	61			
195	618						Grayish Green, SANDSTONE, with interbedded claystone and shale, fine- to medium-grained, moderate strength, moderately decomposed, competent, red and light green discoloration, thinly laminated from 193 to 196 ft bgs, rubble zone from 192 to 198 ft bgs. (Morgantown), hard.
200	613						200.0
		RC (3)	108	64			Grayish Green to Reddish Brown, SANDSTONE, with interbedded shale, fine- to medium-grained, weak to moderate strength, competent, fresh from 200 to 202 ft bgs, moderately decomposed from 202 to 204 ft bgs, thinly laminated (possibly drilling induced), extends 2 millimeters within, hard.
							204.0
205	608						Reddish Brown, SILTSTONE WITH SHALE, interbedded weak to moderate strength, moderately decomposed, rubble zone, soft.
							205.5
							Grayish Green, SILTSTONE WITH SHALE, interbedded moderate strength, soft.
							207.0
							NO RECOVERY.
							208.0

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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WELL 2019-06

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
210	603	RC (4)	120	50			Reddish Brown, SILTY SANDSTONE, with interbedded shale, fine-grained, moderate strength, moderately decomposed. *(continued)*	
							212.0 — Grayish Green, SANDSTONE, some interbedded claystone, fine- to medium-grained, fresh, competent, hard.	Filter Sand (#0 and #1) (192 to 228 ft bgs)
							213.5 — Grayish Green, SILTSTONE WITH SHALE, interbedded moderate strength, soft.	
215	598						217.0 — Grayish Green, SHALE, moderate strength, soft.	
							218.0 — Grayish Green, SILTSTONE WITH SHALE, interbedded moderate strength, soft.	
							219.0 — Grayish Green, SANDSTONE, interbedded fine- to medium-grained, fresh, competent, hard.	Well Screen (194 to 224 ft bgs) (2" SCH 40 PVC/ 0.01" slot)
220	593	RC (5)	111	48			224.0 — Grayish Green, CLAYSTONE AND SHALE, moderate strength, pyrite mineralization, soft.	End Cap
225	588						227.3 — NO RECOVERY.	
							228.0 — *Bottom of Boring @ 228.00 feet bgs*	
230	583							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

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WELL 2019-07

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799
Project Location: Cheshire, OH

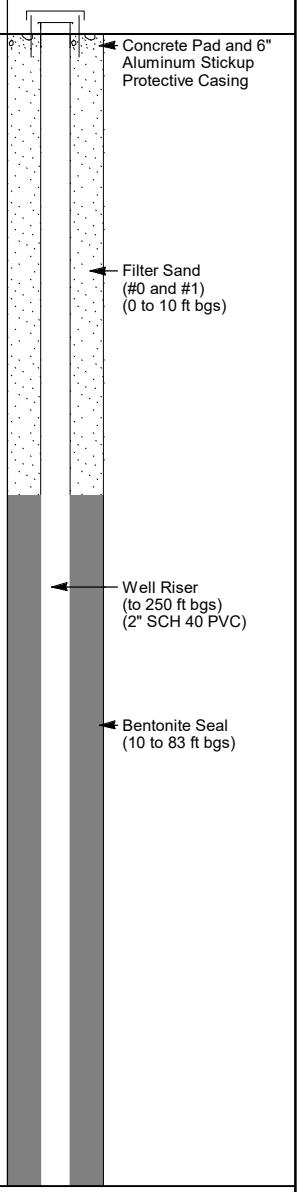
DATE STARTED: 1/6/2020
DATE COMPLETED: 1/20/2020
DRILLING CONTRACTOR: Frontz Drilling, Inc.
DRILLING METHODS: Sonic Drilling/ Rock Coring
LOGGED BY: L. Velasquez
CHECKED BY: H. Usle
NOTES: Steel casing (6") advanced to 80 ft bgs; 4" sonic casing to 198 ft bgs; 4" rock coring to termination depth.

TOTAL DEPTH: 278 ft bgs
DIAMETER: 4-6 inches
GROUND ELEVATION: 812.91 ft amsl (approx.)
PVC ELEVATION: 815.91 ft amsl
NORTHING: 347854.684
EASTING: 2100289.463

WELL DEVELOPMENT
METHOD(S): Air Lift, Grundfos Pump
DATE STARTED: 3/5/2020
DATE ENDED: 5/22/2020
DTW AT START: 225.1 ft bgs
DTW AT END: 269.6 ft bgs
VOLUME PURGED: 15.5 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
5	808	SC					
10	803						Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs.
15	798	SC					
20	793						
25	788						

WELL DIAGRAM



SAMPLE TYPE
- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- SANDSTONE Sandstone
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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
30	783	SC						
35	778	SC						Well Riser (to 250 ft bgs) (2" SCH 40 PVC)
40	773						Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Bentonite Seal (10 to 83 ft bgs)
45	768	SC						
50	763							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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WELL 2019-07

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	758	SC					Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 250 ft bgs) (2" SCH 40 PVC)
60	753							
65	748	SC						
70	743							Bentonite Seal (10 to 83 ft bgs)
75	738	SC						
80	733							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- CLAYSTONE Claystone
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
85	728	SC					Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 250 ft bgs) (2" SCH 40 PVC)
90	723							
95	718	SC						
100	713							Bentonite Grout Seal (83 to 241 ft bgs)
105	708	SC						
110	703							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	698	SC						
120	693							
125	688	SC					Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 250 ft bgs) (2" SCH 40 PVC)
130	683							Bentonite Grout Seal (83 to 241 ft bgs)
135	678	SC						
140	673							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
145	668	SC					Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Well Riser (to 250 ft bgs) (2" SCH 40 PVC)
150	663							
155	658	SC						
160	653							Bentonite Grout Seal (83 to 241 ft bgs)
165	648	SC						
170	643							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

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WELL 2019-07

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	638	SC						
180	633							Well Riser (to 250 ft bgs) (2" SCH 40 PVC)
185	628	SC					Overburden and Bedrock logging not conducted from ground surface to 198 ft bgs. Potential 3 ft void observed at 75 ft bgs. *(continued)*	Bentonite Grout Seal (83 to 241 ft bgs)
190	623							
195	618	SC						
							198.0	
							Light Grayish Green, SANDSTONE, coarse-grained, fresh, competent, hard.	
							199.5	
200	613						200.0 Green and Red, SILTSTONE, fine-grained, laminated, some organics.	
							Dark Grayish Green, SANDSTONE, with silt, coarse-grained, laminated, weak to moderate, some red discoloration, soft.	

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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ACRONYM LEGEND

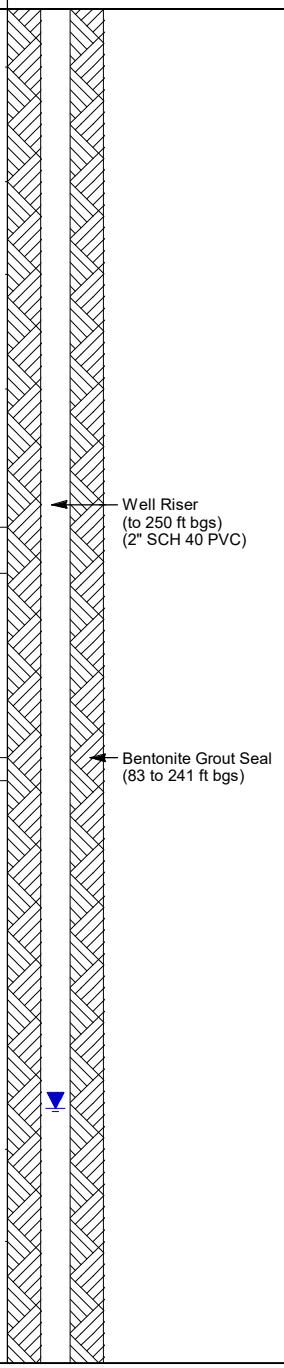
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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
		RC (1)	108	23			Dark Grayish Green, SANDSTONE, with silt, coarse-grained, laminated, weak to moderate, some red discoloration, soft. *(continued)*
							202.5
							Reddish Brown, SILTY SANDSTONE, with clay, fine- to coarse-grained, laminated, weak to moderate, conchoidal breakage, rubble zone.
205	608						205.0
							Reddish Brown, SANDSTONE, with silt, very fine- to fine-grained, conchoidal, clay nodules present, rubble zone.
							207.0
							NO RECOVERY.
							209.5
210	603						Grayish Green to Reddish Brown, SANDSTONE WITH SHALE, interbedded very fine- to fine-grained, weak, moderately decomposed, red and light green discoloration, vertical healed joint from 210.5 to 211 ft bgs, soft.
							212.5
		RC (2)	102	51			Dark Green to Reddish Brown, CLAYSTONE, fine-grained.
							213.5
215	598						Grayish Green, SANDSTONE, fine- to medium-grained, competent, fresh, thin laminations, red and light green discoloration, hard.
							217.5
							218.0 Grayish Green to Reddish Brown, CLAYSTONE, very fine- to fine-grained.
220	593						Grayish Green, SANDSTONE, medium-grained, strong, fresh, competent, hard.
		RC (3)	120	75			
225	588						
							226.0
							Grayish Green, SANDSTONE, with interbedded claystone, fine- to medium-grained, fresh, competent, some coarse pyrite mineralization, hard.
							228.0
230	583						NO RECOVERY.



SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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WELL 2019-07

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
		RC (4)	84	22			231.0 — Grayish Green, SANDSTONE, with interbedded claystone, very fine- to fine-grained, fresh, competent, some coarse pyrite mineralization, hard.
235	578						235.0 — Reddish Brown, SILTSTONE, very fine-grained, strong, slightly decomposed, competent, hard.
							238.0 — NO RECOVERY.
240	573						241.0 — Reddish Brown, SILTSTONE, very fine-grained, strong, slightly decomposed, competent, some green discoloration, soft.
		RC (5)	84	33			243.0 — Grayish Green, SHALE, some silt, some coarse-grained, moderate to weak, slightly decomposed, some red discoloration, soft.
245	568						248.0 — Grayish Green to Reddish Brown, SHALE, interbedded massive, moderate to weak, moderately decomposed, some yellow green discoloration, soft.
250	563	RC (6)	120	38			253.0 — Grayish Green to Reddish Brown, SHALE, moderately decomposed, rubble.
							254.0 — Grayish Green to Reddish Brown, WEATHERED SHALE, massive, moderate to weak, moderately decomposed, some yellow green discoloration, easily crumbled, some coarse pyrite mineralization, soft.
255	558						258.0
							258.5 NO RECOVERY.
260	553						Grayish Green to Reddish Brown, WEATHERED SHALE, laminated, moderate to weak, moderately decomposed, some yellow green discoloration, soft.

WELL DIAGRAM

- Bentonite Seal (241 to 247 ft bgs)
- Filter Sand (#0 and #1) (247 to 272 ft bgs)
- Well Screen (250 to 270 ft bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- CLAYSTONE Claystone
- SHALE Shale

ACRONYM LEGEND

amsl = above mean sea level
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PVC = polyvinyl chloride
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Boston, MA 02108
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WELL 2019-07

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		RC (7)	114	67			Grayish Green to Reddish Brown, WEATHERED SHALE, laminated, moderate to weak, moderately decomposed, some yellow green discoloration, soft. *(continued)*	
							263.0	
265	548						Grayish Green to Reddish Brown, SANDSTONE, with silt, very fine-grained, massive, moderate strength, moderately decomposed, competent, soft.	Well Screen (250 to 270 ft bgs) (2" SCH 40 PVC/ 0.01" slot)
							268.0	
270	543						Grayish Green to Reddish Brown, WEATHERED SHALE, laminated, moderate to weak, moderately decomposed, some yellow green and purple discoloration, healed joint at 269.5 ft bgs, shear fracture with slickensides at 271.5 ft bgs (30° dip), soft.	End Cap
							272.0	
		RC (8)	48	12			NO RECOVERY.	Native Material Not Recovered (272 to 278 ft bgs)
275	538							
							278.0	
							Bottom of Boring @ 278.00 feet bgs	
280	533							
285	528							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SANDSTONE Sandstone
- SILTSTONE Siltstone
- CLAYSTONE Claystone
- SHALE Shale

ACRONYM LEGEND

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WELL 2019-09

Client: Gavin Power, LLC
Project Name: Residual Waste Landfill Monitoring Well Installation
Project Number: 0488799
Project Location: Cheshire, OH

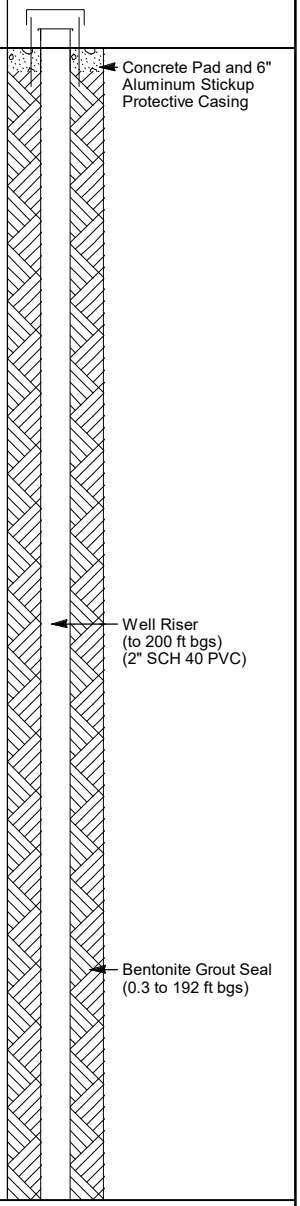
DATE STARTED: 11/19/2019
DATE COMPLETED: 11/26/2019
DRILLING CONTRACTOR: Frontz Drilling, Inc.
DRILLING METHODS: Sonic Drilling/ Rock Coring
LOGGED BY: L. Velasquez
CHECKED BY: H. Usle
NOTES: Steel casing (6") advanced to 188 ft bgs; 4" rock coring to termination depth.

TOTAL DEPTH: 238 ft bgs
DIAMETER: 4-6 inches
GROUND ELEVATION: 747.77 ft amsl (approx.)
PVC ELEVATION: 750.77 ft amsl
NORTHING: 349139.275
EASTING: 2099336.769

WELL DEVELOPMENT
METHOD(S): PVC Bailer, Grundfos & Buffalo Pump
DATE STARTED: 4/22/2020
DATE ENDED: 5/22/2020
DTW AT START: 162.0 ft bgs
DTW AT END: 206.0 ft bgs
VOLUME PURGED: 17.7 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
5	743	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs.
10	738						
15	733						

WELL DIAGRAM



SAMPLE TYPE
- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND
- SHALE / Shale
- SANDSTONE / Sandstone

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20	728	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
25	723	SC						Bentonite Grout Seal (0.3 to 192 ft bgs)
30	718							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE Shale
- SANDSTONE Sandstone

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
35	713	SC						
40	708						Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
45	703	SC						Bentonite Grout Seal (0.3 to 192 ft bgs)
50	698							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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- SANDSTONE Sandstone

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
55	693	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
60	688							Bentonite Grout Seal (0.3 to 192 ft bgs)
65	683	SC						

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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Project Number: 0488799
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	678							
75	673	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC); Bentonite Grout Seal (0.3 to 192 ft bgs)
80	668							
85	663	SC						

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE — Shale
- SANDSTONE — Sandstone

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Project Number: 0488799
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
90	658							Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
95	653	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Bentonite Grout Seal (0.3 to 192 ft bgs)
100	648							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE Shale
- SANDSTONE Sandstone

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
105	643	SC						
110	638						Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC); Bentonite Grout Seal (0.3 to 192 ft bgs)
115	633	SC						
120	628							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE Shale
- SANDSTONE Sandstone

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
125	623	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
130	618							Bentonite Grout Seal (0.3 to 192 ft bgs)
135	613	SC						

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE Shale
- SANDSTONE Sandstone

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	608							
145	603	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
150	598							Bentonite Grout Seal (0.3 to 192 ft bgs)
155	593	SC						

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

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- SANDSTONE Sandstone

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Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
160	588							Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
165	583	SC					Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Bentonite Grout Seal (0.3 to 192 ft bgs)
170	578							

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE Shale
- SANDSTONE Sandstone

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WELL 2019-09

Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
175	573	SC						
180	568						Overburden and Bedrock logging not conducted from ground surface to 188 ft bgs. *(continued)*	Well Riser (to 200 ft bgs) (2" SCH 40 PVC)
								Bentonite Grout Seal (0.3 to 192 ft bgs)
		SC						
185	563							
							188.0	
							NO RECOVERY.	
190	558							
							190.5	
							Grayish Green, SHALE, massive, moderate strength, fresh, competent.	

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE / Shale
- SANDSTONE / Sandstone

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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
							Grayish Green, SHALE, massive, moderate strength, fresh, competent. *(continued)*
							192.5
		RC (1)	94.8	43			Grayish Green, SANDSTONE, fine-grained, massive, fresh, competent.
							194.0
195	553						Grayish Green, SHALE, massive, moderate strength, fresh, competent.
							198.0
							Grayish Green, SHALE, massive, moderate strength, fresh, competent.
							199.5
200	548						Grayish Green, SANDSTONE, massive, possible horizontal joint at approximately 200 ft bgs (rough fractured surface).
							201.5
		RC (2)	120	64			Grayish Green, SHALE, massive, moderate strength, fresh, competent.
205	543						
							208.0
							Grayish Green, SHALE, laminated, weak, fresh, easily crumbled.

WELL DIAGRAM

- Bentonite Seal (192 to 198 ft bgs)
- Filter Sand (#0 and #1) (198 to 238 ft bgs)
- Well Screen (200 to 220 ft bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE / Shale
- SANDSTONE / Sandstone

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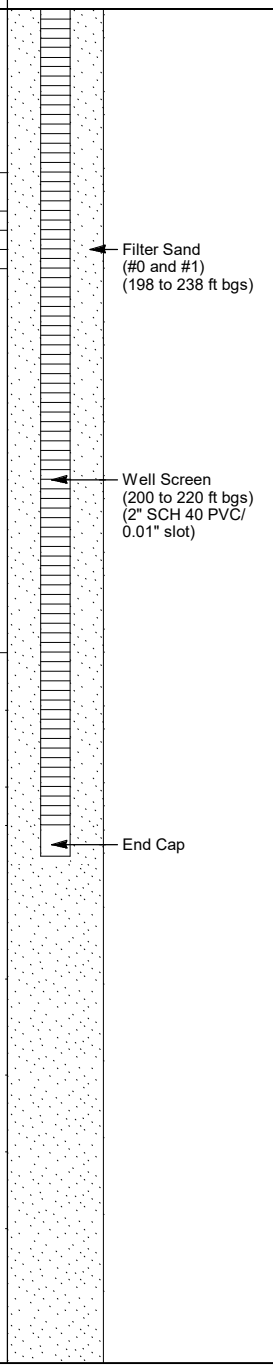
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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION
210	538						Grayish Green, SHALE, laminated, weak, fresh, easily crumbled. *(continued)*
							211.0
							Grayish Green, SANDSTONE, with silt, very fine-grained, competent.
							211.5
							211.8 Grayish Green, SHALE, very weak.
							212.0 Grayish Green, SANDSTONE, with silt, very fine-grained, competent.
							212.3 Grayish Green, SHALE, laminated, weak, fresh, easily crumbled.
		RC (3)	120	10			
215	533						Grayish Green, SANDSTONE, with silt, very fine-grained, fresh, competent, closely spaced joints from 216 to 217 ft bgs, rough fracture surface.
							217.3
							Grayish Green, SHALE, very weak, easily crumbled.
							218.0
							Grayish Green, SHALE, laminated, very weak, easily crumbled.
							219.0
							Grayish Green, SHALE, strong, fresh, competent.
							219.5
220	528						Grayish Green, SHALE, laminated, very weak, easily crumbled.
							221.5
							Grayish Green, SHALE, strong, fresh, competent.
							222.8
		RC (4)	120	20			Grayish Green, SHALE, strong, fresh, competent.
							223.8
							Grayish Green, SHALE, tight, strong, fresh, competent, possible joint, horizontal, rough texture.
							224.8
225	523						Grayish Green, SHALE, moderate strength, fresh, competent, broken fragments.

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE / Shale
- SANDSTONE / Sandstone

ACRONYM LEGEND

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Client: Gavin Power, LLC **Project Name:** Residual Waste Landfill Monitoring Well Installation

Project Number: 0488799 **Project Location:** Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
							Grayish Green, SHALE, moderate strength, fresh, competent, broken fragments. *(continued)*	
							228.0	
							Grayish Green, SHALE, very weak, clayey clusters of fragments, easily crumbled.	
							229.6	
230	518						Grayish Green, SHALE, moderate to strong, fresh, competent.	← Filter Sand (#0 and #1) (198 to 238 ft bgs)
							231.6	
							Grayish Green, SHALE, strong, fresh, competent.	
							232.6	
		RC (5)	120	66			Grayish Green, SHALE, laminated, weak to moderate, fresh, competent.	
							234.5	
235	513						Grayish Green, SHALE, very weak, easily crumbled.	
							238.0	
240	508						*Bottom of Boring @ 238.00 feet bgs*	

SAMPLE TYPE

- Sonic Drilling
- Wireline Rock Coring

GRAPHIC LOG LEGEND

- SHALE Shale
- SANDSTONE Sandstone

ACRONYM LEGEND

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 345,099.1 E 2,103,287.5**

GROUND ELEVATION **612.0** SYSTEM **STATE PLANE**

Water Level, ft	▽ 25.9	▼ 10.2	▼ 5.7
TIME	0700	2:30	7:30
DATE	7-7-94	7-11-94	7-12-94

BORING NO. **R-93100** DATE **11/24/10** SHEET **1** OF **5**

BORING START **7/6/94** BORING FINISH **7/20/94**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND **2.04** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **72.1** BOTTOM **111.0**

WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**

FIELD PARTY **TJH RLY** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	0.0	2.0	1-2-8-6	1.2					**BROWN GRAY CLAY** Moist,fill.		Hole was drilled using a 5 7/8" roller bit.
2	SS	2.0	4.0	5-8-10-14	1.0					**BROWN RED SANDY CLAY** Moist fill.		
3	SS	4.0	6.0	5-7-17-14	1.0		5			**RED CLAY** Moist ,shale,fill.		
4	SS	6.0	8.0	5-6-7-9	1.2					**MULTI-COLORED RED AND BROWN CLAY** Moist,fill.		
5	SS	8.0	10.0	2-3-5-7	.8					**MULTI-COLORED BROWN CLAY** Moist,fill.		
6	SS	10.0	12.0	1-2-3-5	1.0		10			**REDDISH BROWN CLAY** Moist,fill.		
7	SS	12.0	14.0	3-5-6-9	1.2					**MULTI-COLORED BROWN AND GRAY SANDY CLAY** Moist, trace of gravel.		
8	SS	14.0	16.0	4-6-7-9	1.2							
9	SS	16.0	18.0	4-4-5-6	1.5		15			**DARK GRAY CLAY** Moist to wet natural material.		
10	SS	18.0	20.0	3-4-5-7	1.6					**BROWN AND GRAY CLAY** Moist.		

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
X	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **RLY**

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93100** DATE **11/24/10** SHEET **2** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
11	SS	20.0	22.0	3-3-5-8	2.0							
12	SS	22.0	24.0	3-5-5-5	2.0					**GRAY CLAY** Moist to wet.		
13	SS	24.0	26.0	2-4-5-6	2.0					**GRAY CLAY** Wet to moist.		
							25					
14	SS	26.0	28.0	4-6-12-13	1.5					**RED CLAYSTONE** Weathered, moist.		
15	SS	28.0	30.0	10-14-24-40	1.4							
16	SS	30.0	31.0	24-50	.6		30					
17	NQ	31.0	34.8		3.8	100				**RED CLAYSTONE** Soft.		
										GRAY AND RED SANDY SHALE Soft.		
18	NQ	34.8	44.8		9.7	87	35			**GRAY SANDSTONE** Fine grain, well cemented, hard with vertical cracks 36.2 to 37.1 broken clay on joint.		
										RED AND GRAY SANDY SHALE Medium soft.		
										RED CLAYSTONE Soft.		
							40			**GRAY SANDSTONE** Hard, well cemented, clay on joint, pyrite.		
19	NQ	44.8	49.8		5.0	96	45			**RED AND GRAY CLAYSTONE** Medium soft.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93100** DATE **11/24/10** SHEET **3** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										GRAY SHALE Medium soft, large amount pyrite.		
										RED CLAY SHALE Medium hard.		
20	NQ	49.8	54.8		5.0	100	50					
										RED AND LIGHT BROWN CLAYSTONE With limestone nodules.		
21	NQ	54.8	59.8		5.0	96	55					
22	NQ	59.8	64.8		5.0	84	60			**RED TO LIGHT GRAY CLAY SHALE** Well cemented.		61.6 Top bentonite seal.
23	NQ	64.8	69.8		5.0	74	65			**68.2 to 68.4 soft**		68.4 Top of sand.
24	NQ	69.8	74.8		4.9		70			**RED CLAY SHALE** Well cemented, medium hard.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

BORING NO. **R-93100** DATE **11/24/10** SHEET **4** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										GRAY SILTY CLAY SHALE Well cemented, medium hard.		72.1 Top screen.
25	NQ	74.8	79.8		4.9	76	75			**LIGHT GRAY TO RED CLAY SHALE** Well cemented, medium hard.		
26	NQ	79.8	84.8		4.7	84	80			**LIGHT GRAY AND RED CLAY SHALE** Medium hard, well cemented.		
27	NQ	84.8	89.8		5.0	58	85			**RED CLAYSTONE** Medium hard.		
28	NQ	89.8	94.8		5.0		90					
29	NQ	94.8	104.8		10.0	100	95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93100** DATE **11/24/10** SHEET **5** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/6/94** BORING FINISH **7/20/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							100			**GRAY SILTY LIMESTONE** Medium hard , well cemented some pyrite.		
										GRAY SILTY SHALE		
										GRAY SILTY SANDSTONE		
										GRAY SILTY CLAY SHALE		
30	NQ	104.8	113.7		8.1		105			**RED AND GRAY SHALE** Medium hard.		
										GRAY SHALEY SANDSTONE Hard.		
							110					111.0 Bottom of screen.
										GRAY SHALE Medium hard.		113.5 Bottom of sand.
										8-4-94 DEVELOPED WELL AND PURGED DRY. **9-07-94 SWL 14.18 8:58 PURGED DRY 9:30** **9-08-94 56 56** **pH 7.80 7.85** **COND 1445 1386** **PUMP INSTALLED 8-04-94 AT APPROXIMATELY 110.5'** **WELL WAS DEVELOPED USING A RED-FLO PUMP CONTINUOUS FLOW**		

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 345,307.0 E 2,104,199.8**

GROUND ELEVATION **716.7** SYSTEM **STATE PLANE**

Water Level, ft	▽ 20.8	▼ 88.4	▽
TIME	8:20	1:30	
DATE	8-6-93	8-9-93	

BORING NO. **R-93108** DATE **11/24/10** SHEET **1** OF **7**

BORING START **8/4/93** BORING FINISH **8/10/93**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND **1.69** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **129.9** BOTTOM **149.9**

WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**

FIELD PARTY **TJH-GCF** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	4.2	5.7	6-7-13	.9		5			**GRAY/BROWN SILTY SHALE** Road bed,dry.		Hole drilled using a 5 7/8" roller bit.
2	SS	9.2	10.7	11-17-19	.5		10			**GRAY SHALE** Mica,dry.		Well 9398 bottom of screen 83.90.
3	SS	14.2	15.7	7-5-8	.8		15			**BROWN/GRAY SILTY SHALE** Dry.		Well 93108 bottom of screen 149.9.
4	SS	19.2	20.1	26-50/.3	.6					**GRAY SHALE** Dry.		

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
X	SW CASING	6"
	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

BORING NO. **R-93108** DATE **11/24/10** SHEET **2** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
5	NQ	22.5	30.4		7.9	87				**GRAY SHALE** Weathered,soft to medium.		
							25			**COAL**		
										GRAY SHALE Weathered,soft to medium.		
6	NQ	30.4	35.4		5.0	56	30					
							35			**BLACK SHALEY COAL** Medium to hard.		
7	NQ	35.4	43.5		8.0	72				**GRAY SHALE** Weathered.		
										GRAY LIMESTONE Hard.		
							40			**MULTI-COLORED RED/GRAY/GREEN SHALE** Weathered,soft to medium.		
8	NQ	43.5	45.4		1.9	57						
							45					
9	NQ	45.4	55.1		7.0							

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93108** DATE **11/24/10** SHEET **3** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							50					50.0 Top of bentonite seal.
										GRAY SHALEY SANDSTONE Mica.		
10	NQ	55.1	65.4		10.2	96	55					55.0 Top of gravel pack. Partial loss of drill water.
							60					2000 gallons of water used.
										GREEN SANDY SHALE Weathered,medium.		
										GRAY/RED/GREEN SHALE Weathered,medium.		
11	NQ	65.4	75.4		9.7	91	65					64.55 Top of screen. Water return back to normal.
							70					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93108** DATE **11/24/10** SHEET **4** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							75					
12	NQ	75.4	85.4		9.4	89						
							80			**GRAY SANDY SHALE** Medium to hard.		4000 gallons of water used.
										GRAY/RED/GREEN SHALE Weathered,medium changing to soft to medium at 85.4.		83.90 Bottom of screen.
13	NQ	85.4	95.4		10.0	89	85					86.10 Bottom of gravel pack.
							90					
							95					
14	NQ	95.4	105.4		10.0	66						

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93108** DATE **11/24/10** SHEET **5** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							100					
							105					
15	NQ	105.4	110.4		4.3	11						
							110					
16	NQ	110.4	115.4		3.4	17						
							115					
17	NQ	115.4	124.8		8.7	21						6000 gallons of water used.
							120					123.0 Top of bentonite seal.

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93108** DATE **11/24/10** SHEET **6** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
~~18~~	~~NQ~~	~~124.8~~	~~134.7~~		~~9.0~~		125					8000 gallons of water used.
												128.50 Top of gravel pack.
							130			**DARK GRAY SANDSTONE**		129.9 Top of screen.
										RED/MULTI-COLOR SHALE		
~~19~~	~~NQ~~	~~134.7~~	~~143.0~~		~~8.3~~	~~86~~	135			**RED CLAY SHALE** Hard.		
							140					
20	NQ	143.0	145.4		100	91						
							145					
21	NQ	145.4	155.4		9.9					**GRAY CLAY SHALE**		
										GRAY SANDSTONE		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93108** DATE **11/24/10** SHEET **7** OF **7**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/4/93** BORING FINISH **8/10/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
												149.9 Bottom of screen.
										GRAY SANDY SHALE Hard.		
												152.0 Top of bentonite seal.
										RED/GRAY CLAY SHALE Hard.		
							155					155.4 Bottom of boring.
										6-8-94 SWL 120.02 **8-24-94 SWL 98.22** **8-25-94 SWL 99.04** **8-29-94 SWL 123.07** **8-30-94 PURGED WELL DRY** **8-31-94 TEMP 60 59** **COND 2460 2480** **pH 7.69 7.84** **9-3-94 SWL 121.1** **PUMP INSTALLED 8-2-94 APPROXIMATELY 148.4** **WELL WAS DEVELOPED USING A RED-FLO CONTINUOUS FLOW PUMP.**		

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 347,038.0 E 2,104,957.2**

GROUND ELEVATION **594.0** SYSTEM **STATE PLANE**

Water Level, ft			
TIME			
DATE			

BORING NO. **R-94136** DATE **11/24/10** SHEET **1** OF **6**

BORING START **8/30/94** BORING FINISH **9/8/94**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **75.4** BOTTOM **114.5**

WELL DEVELOPMENT **SEE NOTE** BACKFILL **VOLCLAY**

FIELD PARTY **TJH-RLY** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	0.0	1.5	8-8-8	.9					**BROWN CLAY** Moist.		Hole was drilled using a 8" air hammer.
2	SS	1.5	3.0	5-8-8	1.0							
3	SS	3.0	4.0	6-8-11	.7							
4	SS	4.5	6.0	4-4-4	.8		5					
5	SS	6.0	7.5	3-3-7	1.1							
6	SS	7.5	9.0	4-5-8								
7	SS	9.0	10.5	3-6-7	.6							
8	SS	10.5	12.0	4-4-6	.9		10					
9	SS	12.0	13.5	5-7-7	.7					**LIGHT BROWN CLAY** Moist.		
10	SS	13.5	15.0	5-9-11	.8					**TOP .04 LIGHT BROWN CLAY** With trace of lignite.		
										GRAY SAND Moist.		
11	SS	15.0	16.5	8-9-14	1.1		15			**BROWN CLAYEY SAND** Moist.		
12	SS	16.5	18.0	7-8-9	1.1					**BROWN CLAY** With sandstone gravel (mine spoil?)		
13	SS	18.0	19.5	4-5-5	.9							
14	SS	19.5	21.0	3-3-4	.7							

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
X	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **RLY**

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

BORING NO. **R-94136** DATE **11/24/10** SHEET **2** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
15	SS	21.0	22.5	3-3-5	.8					**BROWN CLAY** Moist.		
16	SS	22.5	24.0	3-3-4	1.0					**BROWN SAND** Well graded, oxidized wet.		
17	SS	24.0	25.5	2-3-4	.8					**BROWN CLAY** Moist.		
18	SS	25.5	27.0	3-5-6	1.1		25					
19	SS	27.0	28.5	4-4-4	1.0							
20	SS	28.5	30.0	2-4-4								
21	SS	30.0	31.5	3-5-6	1.2		30			**BROWN CLAYEY SILT** Moist.		
22	SS	31.5	33.0	3-3-4	1.1							
23	SS	33.0	34.5	3-3-5	1.2							
24	SS	34.5	36.0	3-4-6	1.0					**GRAY CLAY** Moist.		
25	SS	36.0	37.5	3-3-4	1.3		35					
26	SS	37.5	39.0	3-5-7						**BROWN CLAYEY SILT** Moist		
27	SS	39.0	40.5	3-5-8	1.2							
28	SS	40.5	42.0	3-5-5	1.2		40			**GRAY SILTY CLAY** Moist.		
29	SS	42.0	43.5	2-4-4	1.1							
30	SS	43.5	45.0	2-2-3	1.2							
31	SS	45.0	46.5	2-2-4	1.0		45					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94136** DATE **11/24/10** SHEET **3** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
32	SS	46.5	48.0	3-4-6	1.2							
33	SS	48.0	49.5	3-3-6	.9							
34	SS	49.5	51.0	2-4-4	.9		50					
35	SS	51.0	52.5	3-4-5	1.1							
36	SS	52.5	54.0	3-4-4	1.2							
37	SS	54.0	55.5	3-5-6	1.1		55					
38	SS	55.5	57.0	4-6-6	1.2							
39	SS	57.0	58.5	2-3-4	.9							
40	SS	59.5	61.0	3-3-7	1.1		60					
41	SS	61.0	62.5	6-6-6	.9							
42	SS	62.5	64.0	4-4-6	1.2							
43	SS	64.0	65.5	3-5-5	1.1		65					
44	SS	65.5	67.0	3-3-5								
45	SS	67.0	68.5	4-5-5								
46	SS	68.5	70.0	5-12-12	1.2					**TOP OF SAMPLE GRAY SILTY CLAY** **BOTTOM SAND AND SHALE GRAY**		
47	SS	70.0	71.5	12-16-16	0		70					69.1 Top of bentonite seal.
48	SS	71.5	73.0	16-15-24	0							

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94136** DATE **11/24/10** SHEET **4** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
49	NQ	74.2	80.0		5.8	74	75			**GRAY CLAY SHALE** Hard.		74.5 Top of sand. 75.4 Top of screen.
										GRAY SANDSTONE		
50	NQ	80.0	85.0		5.0	70	80					
										GRAY CLAY SHALE		
51	NQ	85.0	95.0		10.0	0	85					
							90					
52	NQ	95.0	105.0		10.0	39	95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94136** DATE **11/24/10** SHEET **5** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							100			**DARK REDDISH BROWN CLAY SHALE**		
53	NQ	105.0	110.0		5.0	60	105					
54	NQ	110.0	115.0		5.0	92	110					
55	NQ	115.0	120.0		5.0	92	115					114.5 Bottom of screen. 116.0 Bottom of sand.
										GRAY SANDY SHALE		
56	NQ	120.0	125.0		5.0	74	120			**REDDISH BROWN CLAY SHALE**		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94136** DATE **11/24/10** SHEET **6** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **8/30/94** BORING FINISH **9/8/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							125					
57	NQ	125.0	130.0		5.0	54				**GRAY CLAY SHALE**		
58	NQ	130.0	135.0		5.0	86	130			**REDDISH BROWN CLAY SHALE**		
							135			**10-6-94 SWL 27.3 PURGED DRY** **10-7-94 SWL 27.8** **10-7-94 TEMP 58 58** **COND 1859 1849** **pH 7.34 7.45** **PUMP INSTALLED 10-6-94 APPROXIMATELY 114.0'** **WELL WAS DEVELOPED USING A RED-FLO CONTINUOUS FLOW PUMP**		135.0 Bottom of seal.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 347,033.7 E 2,104,959.4**

GROUND ELEVATION **594.0** SYSTEM **STATE PLANE**

Water Level, ft	**21.6**		
TIME			
DATE	**9-6-94**		

BORING NO. **R-94137** DATE **11/24/10** SHEET **1** OF **6**

BORING START **9/6/94** BORING FINISH **9/7/94**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **40.0** BOTTOM **48.9**

WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**

FIELD PARTY **TJH-REY** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							5			**BROWN CLAY** Moist.		Hole was drilled using a 5 7/8" roller bit.
							10			**LIGHT BROWN CLAY** Moist.		
										TOP .04 LIGHT BROWN CLAY With trace of lignite.		
							15			**GRAY SAND** Moist.		
										BROWN CLAYEY SAND Moist.		
										BROWN CLAY With sandstone gravel (mine spoil?)		

TYPE OF CASING USED

	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
X	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REY**

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94137** DATE **11/24/10** SHEET **2** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										BROWN CLAY Moist.		
										BROWN SAND Well graded, oxidized wet.		
										BROWN CLAY Moist.		
							25					
							30			**BROWN CLAYEY SILT** Moist.		
												33.3 Top bentonite seal.
							35			**GRAY CLAY** Moist.		36.0 Top of gravel.
										BROWN CLAYEY SILT Moist		
							40			**GRAY SILTY CLAY** Moist.		40.0 Top of screen.
							45					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94137** DATE **11/24/10** SHEET **3** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							50					48.9 Bottom of screen. 50.0 Bottom of gravel.
							55					
							60					
							65			**TOP OF SAMPLE GRAY SILTY CLAY** **BOTTOM SAND AND SHALE GRAY**		
							70					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94137** DATE **11/24/10** SHEET **4** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							75			**GRAY CLAY SHALE** Hard.		
							80			**GRAY SANDSTONE**		
							85			**GRAY CLAY SHALE**		
							90					
							95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94137** DATE **11/24/10** SHEET **5** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							100			**DARK REDDISH BROWN CLAY SHALE**		
							105					
							110					
							115					
							120			**GRAY SANDY SHALE**		
										REDDISH BROWN CLAY SHALE		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94137** DATE **11/24/10** SHEET **6** OF **6**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **9/6/94** BORING FINISH **9/7/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							125			**GRAY CLAY SHALE**		
							130			**REDDISH BROWN CLAY SHALE**		
							135			**10-6-94 SWL 28.92 PUMPED DRY** **10-7-94 SWL 30.52** **TEMP 58 58** **COND 1092 1099** **pH 7.09 7.03** **PUMP WAS INSTALLED 10-6-94** **APPROXIMATELY 48.4'** **WELL WAS DEVELOPED USING A RED-FLO** **CONTINUOUS PUMP**		

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 345,099.4 E 2,103,292.9**

GROUND ELEVATION **612.0** SYSTEM **STATE PLANE**

Water Level, ft	▽	▼	▼
TIME			
DATE			

BORING NO. **R-94139** DATE **11/24/10** SHEET **1** OF **5**

BORING START **7/21/94** BORING FINISH **7/21/94**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **40.0** BOTTOM **58.9**

WELL DEVELOPMENT **SEE NOTES** BACKFILL **VOLCLAY**

FIELD PARTY **TJH REY** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										BROWN GRAY CLAY Moist,fill.		9.25" HSA TO 31.0' AND 5 7/8" ROLLER BIT TO 61.0'.
										BROWN RED SANDY CLAY Moist fill.		
										RED CLAY Moist ,shale,fill.		
							5			**MULTI-COLORED RED AND BROWN CLAY** Moist,fill.		
										MULTI-COLORED BROWN CLAY Moist,fill.		
							10			**REDDISH BROWN CLAY** Moist,fill.		
										MULTI-COLORED BROWN AND GRAY SANDY CLAY Moist, trace of gravel.		
							15			**DARK GRAY CLAY** Moist to wet natural material.		
										BROWN AND GRAY CLAY Moist.		

TYPE OF CASING USED

	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
X	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REY**

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94139** DATE **11/24/10** SHEET **2** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							25			**GRAY CLAY** Moist to wet.		
										GRAY CLAY Wet to moist.		
										RED CLAYSTONE Weathered, moist.		
							30			**RED CLAYSTONE** Soft.		31.0 Top of bentonite seal.
							35			**GRAY AND RED SANDY SHALE** Soft.		
										GRAY SANDSTONE Fine grain, well cemented, hard with vertical cracks 36.2 to 37.1 broken clay on joint.		37.3 Top of sand.
										RED AND GRAY SANDY SHALE Medium soft.		
							40			**RED CLAYSTONE** Soft.		40.0 Top of screen.
										GRAY SANDSTONE Hard, well cemented, clay on joint, pyrite.		
							45			**RED AND GRAY CLAYSTONE** Medium soft.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

BORING NO. **R-94139** DATE **11/24/10** SHEET **3** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										GRAY SHALE Medium soft, large amount pyrite.		
										RED CLAY SHALE Medium hard.		
							50					
										RED AND LIGHT BROWN CLAYSTONE With limestone nodules.		
							55					
												58.9 Bottom of screen.
							60			**RED TO LIGHT GRAY CLAY SHALE** Well cemented.		
												61.0 Bottom of sand.
							65			**68.2 to 68.4 soft**		
							70			**RED CLAY SHALE** Well cemented, medium hard.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94139** DATE **11/24/10** SHEET **4** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							75			**GRAY SILTY CLAY SHALE** Well cemented, medium hard.		
										LIGHT GRAY TO RED CLAY SHALE Well cemented, medium hard.		
							80			**LIGHT GRAY AND RED CLAY SHALE** Medium hard, well cemented.		
							85			**RED CLAYSTONE** Medium hard.		
							90					
							95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-94139** DATE **11/24/10** SHEET **5** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **7/21/94** BORING FINISH **7/21/94**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										GRAY SILTY LIMESTONE Medium hard , well cemented some pyrite.		
							100			**GRAY SILTY SHALE**		
										GRAY SILTY SANDSTONE		
										GRAY SILTY CLAY SHALE		
							105			**RED AND GRAY SHALE** Medium hard.		
										GRAY SHALEY SANDSTONE Hard.		
							110			**GRAY SHALE** Medium hard.		
										8-25-94 SWL 14.19 10:11 AM **9-7-94 SWL 13.83 7:30 AM** **DEVELOPED, PURGED DRY** **9-8-94 SWL 14.95** **TEMP 59 57** **COND 1216 1219** **pH 7.25 7.48** **WELL DEVELOPED USING A RED-FLO CONTINUOUS FLOW PUMP** **PUMP INSTALLED 9-25-94 AT APPROXIMATELY 58.5'**		

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN FGD RETROFIT PROJECT**

COORDINATES **N 349,605.8 E 2,103,045.0**

GROUND ELEVATION **609.8** SYSTEM **State Plane using NADA27**

Water Level, ft	▽ 30.9	▼	▼
TIME			
DATE	11-12-98		

BORING NO. **R-9801** DATE **11/24/10** SHEET **1** OF **6**

BORING START **11/10/98** BORING FINISH **12/3/98**

PIEZOMETER TYPE **N\A** WELL TYPE **OW**

HGT. RISER ABOVE GROUND **1.6** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **109.4** BOTTOM **129.0**

WELL DEVELOPMENT **Yes** BACKFILL **Quick grout**

FIELD PARTY **TJH-REB** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	2.4		2-3-4	1.2				CL	**BROWN SANDY CLAY** Moist.		
2	SS	7.4	8.9	4-5-7	1.1		5					
3	SS	12.4	13.9	4-7-7	1.2		10					
4	SS	17.4	18.9	4-5-7	1.1		15		CL	**RED AND BROWN SANDY CLAY**		

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
X	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REB**

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9801** DATE **11/24/10** SHEET **2** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
5	SS	22.4	23.9	2-4-5	1.2				CL	**RED SANDY CLAY** Soft.		
6	SS	27.4	28.9	3-5-7	1.2		25		CL	**BROWN AND GRAY SANDY CLAY** Dry		
7	SS	32.4	33.9	3-4-6	1.1		30		CL	**MULTICOLORED RED GRAY BROWN SANDY CLAY** Moist.		
8	SS	37.4	38.9	4-7-10	1.2		35		CL	**RED, BROWN SANDY CLAY** Moist.		
9	SS	42.4	43.9	13-25-33	1.2		40			**MULTICOLORED RED, GRAY, YELLOWISH BROWN CLAY SHALE**		
							45					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9801** DATE **11/24/10** SHEET **3** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
10	SS	47.4	48.9	30-30-30	1.2					**RED AND GRAY CLAY SHALE** Dry , weathered.		
11	NQ-2	48.9	55.0		6.0	100	50			**MULTICOLORED RED, GRAY, YELLOWISH BROWN CLAY SHALE**		
12	NQ-2	55.0	59.5		3.3	100	55			**RED AND BROWN CLAY SHALE**		
13	NQ-2	59.5	68.7		3.1	35	60			**10R-4\2 GRAYISH RED CLAY SHALE**		
14	NQ-2	68.7	70.0		1.1	100	65			**RED AND GRAY CLAY SHALE**		
15	NQ-2	70.0	75.0		3.5	100	70			**10R 4\2 GRAYISH RED CLAY SHALE** **MULTICOLORED RED, GRAY, BROWN CLAY SHALE**		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9801** DATE **11/24/10** SHEET **4** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
16	NQ-2	75.0	80.0		5.0	48	75			**N5 MEDIUM GRAY CLAY SHALE** Pyrite. **N5 MEDIUM GRAY LIMESTONE** **10R 4\2 GRAYISH RED CLAY SHALE** **N5 MEDIUM GRAY CLAY SHALE**		
17	NQ-2	80.0	85.0		5	44	80			**N5 MEDIUM GRAY SANDY CLAY SHALE** With .3 limestone at 81.3'.		
18	NQ-2	85.0	95.0		10	75	85			**N5 MEDIUM GRAY CLAY SHALE** Soft clay seam at 94.1 to 94.7.		
							90					
19	NQ-2	95.0	101.5		6.4	60	95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9801** DATE **11/24/10** SHEET **5** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
												98.0 top of bentonite seal.
20	NQ-2	101.5	105.0		3.5	88	100			**MULTICOLORED REDDISH, GREENISH,MEDIUM GRAY CLAY SHALE**		
										N5 MEDIUM GRAY CLAY SHALE		104.4 top of sand.
21	NQ-2	105.0	111.7		6.6	37	105					
										N5 MEDIUM GRAY CLAY SHALE Soft.		109.4 top of screen.
22	NQ-2	111.7	118.9		4	0	110			**REDDISH BROWN CLAY SHALE** Soft, small .5-1.0 mm pyrite common just above limestone.		
23	NQ-2	118.9	120.0		1.1	100	115			**N5 MEDIUM GRAY LIMESTONE**		
24	NQ-2	120.0	125.0		3.9	58	120			**N5 MEDIUM GRAY SANDY SHALE**		
										N5 MEDIUM GRAY SANDSTONE		
										N5 MEDIUM GRAY SHALEY SANDSTONE		
										N5 MEDIUM GRAY CLAY SHALE		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9801** DATE **11/24/10** SHEET **6** OF **6**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **11/10/98** BORING FINISH **12/3/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							125			**10R 4\6 MODERATE REDDISH BROWN CLAY SHALE**		
25	NQ-2	125.0	130.0		4.3	46				**N7 LIGHT GRAY CLAY SHALE**		129 bottom of screen.
							130					130 bottom of well.
												131 bottom of sand.

AEP GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9802** DATE **11/24/10** SHEET **2** OF **2**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/1/98** BORING FINISH **12/2/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
6	SS	27.9	29.4	4.4.7	1.2				CL	**GRAY SANDY CLAY** Soft.		
7	SS	32.9	34.4	5.11.15	1.2		30		CL	**GRAY AND BROWN CLAY** Stiff.		
8	SS	37.9	39.4	6.9.12	1.1		35			**MULTI COLORED RED, GRAY, BROWNISH YELLOWISH WEATHERED CLAY SHALE.**		35 top of bentonite seal. 37 top of sand. 39 top of screen.
9	SS	42.9	44.4	5.7.9	1.1		40					
10	SS	47.9	49.4	15.25.30	1.1		45			**MULTI COLORED RED, GRAY, BROWN SANDY CLAY** With embedded gravel, moist.		48.5 bottom of screen. 49.6 bottom of well. 50 bottom of sand.
							50					

AEP GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN FGD RETROFIT PROJECT**

COORDINATES **N 349,056.1 E 2,103,324.6**

GROUND ELEVATION **718.3** SYSTEM **State Plane using NADA27**

Water Level, ft	▽	▼	▼
TIME			
DATE			

BORING NO. **R-9806** DATE **11/24/10** SHEET **1** OF **7**

BORING START **12/22/98** BORING FINISH **12/29/98**

PIEZOMETER TYPE **N\A** WELL TYPE **OW**

HGT. RISER ABOVE GROUND **2.0** DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **111.0** BOTTOM **140.0**

WELL DEVELOPMENT **Yes** BACKFILL **Quick grout**

FIELD PARTY **TJH-REB** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										See boring R-9805 for lithology.		

5

10

15

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
X	AIR HAMMER	8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **TJH**

AEP_GAVIN_FGD_BORINGS.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9806** DATE **11/24/10** SHEET **2** OF **7**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/22/98** BORING FINISH **12/29/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							25					
							30					
							35					
							40					
							45					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9806** DATE **11/24/10** SHEET **3** OF **7**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/22/98** BORING FINISH **12/29/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							50					
							55					
							60					
							65					
							70					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9806** DATE **11/24/10** SHEET **4** OF **7**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/22/98** BORING FINISH **12/29/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							75					
							80					
							85					
							90					
							95					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9806** DATE **11/24/10** SHEET **5** OF **7**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/22/98** BORING FINISH **12/29/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							100					
							105					103.5 Top of bentonite seal.
							110					108.2 Top of sand pack.
							115					111.0 Top of screen.
							120					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9806** DATE **11/24/10** SHEET **6** OF **7**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/22/98** BORING FINISH **12/29/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							125					
							130					
							135					
							140					140.0 Bottom of screen.
												141.0 Bottom of well and sand.
							145					149.4 Bottom of

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER **1477**

COMPANY **OHIO POWER COMPANY** BORING NO. **R-9806** DATE **11/24/10** SHEET **7** OF **7**

PROJECT **GAVIN FGD RETROFIT PROJECT** BORING START **12/22/98** BORING FINISH **12/29/98**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
												bentonite seal.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

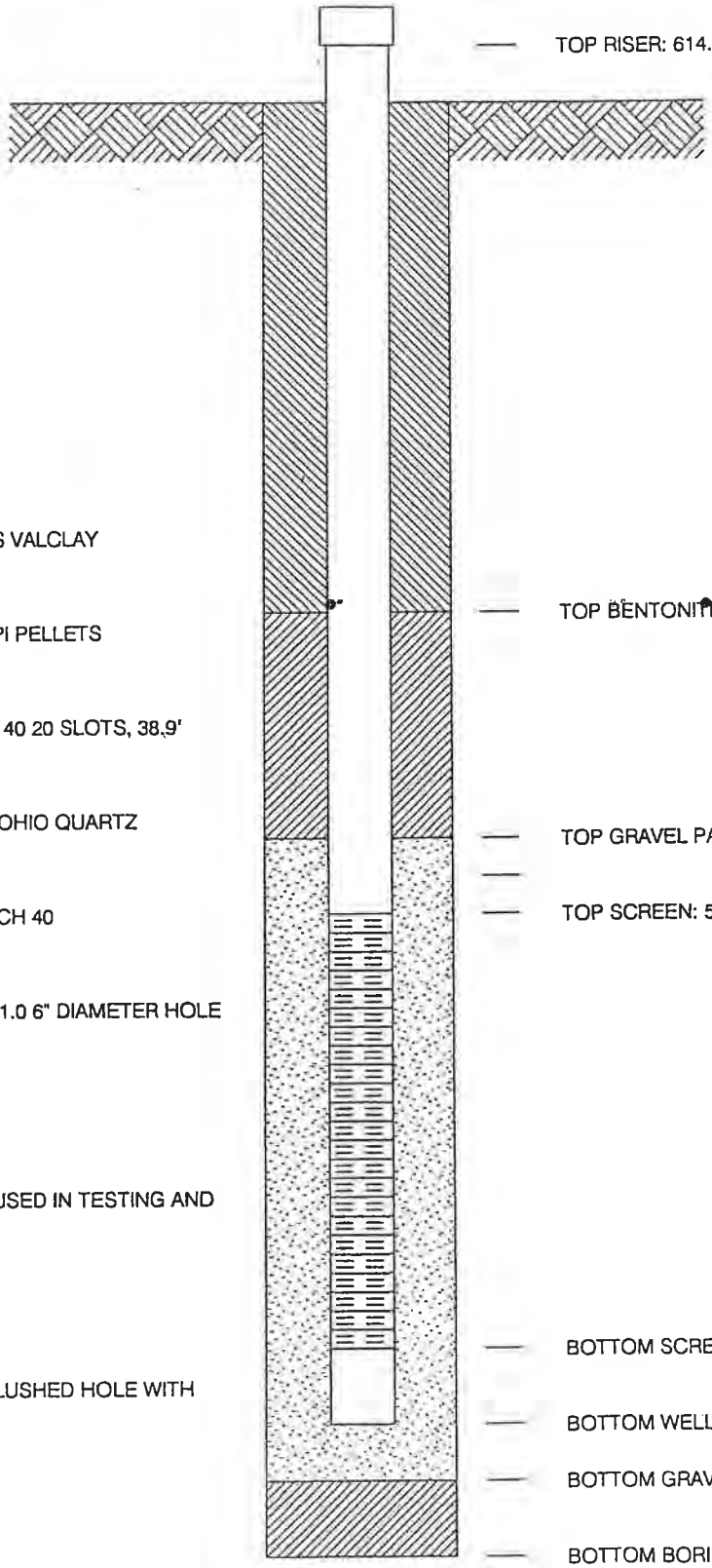
WELL No. R-93100 BORING No. R-93100 INSTALLED 07/20/94

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 345,099.1 E 2,103,287.5

SYSTEM STATE PLANE

GROUND ELEVATION 612.00 FT



GROUT SEAL: 100 GALLONS VALCLAY

BENTONITE SEAL: 75 LBS. PI PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 20 SLOTS, 38.9'

GRAVEL PACK: 800 LBS #4 OHIO QUARTZ

RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: 6.25 HSA TO 31.0 6" DIAMETER HOLE
31.0 TO 114.0

6000 GALLONS OF WATER USED IN TESTING AND REAMING HOLE.

SPIDERS 111.0-72.0-35.0.. FLUSHED HOLE WITH 750-1000 GALLONS

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

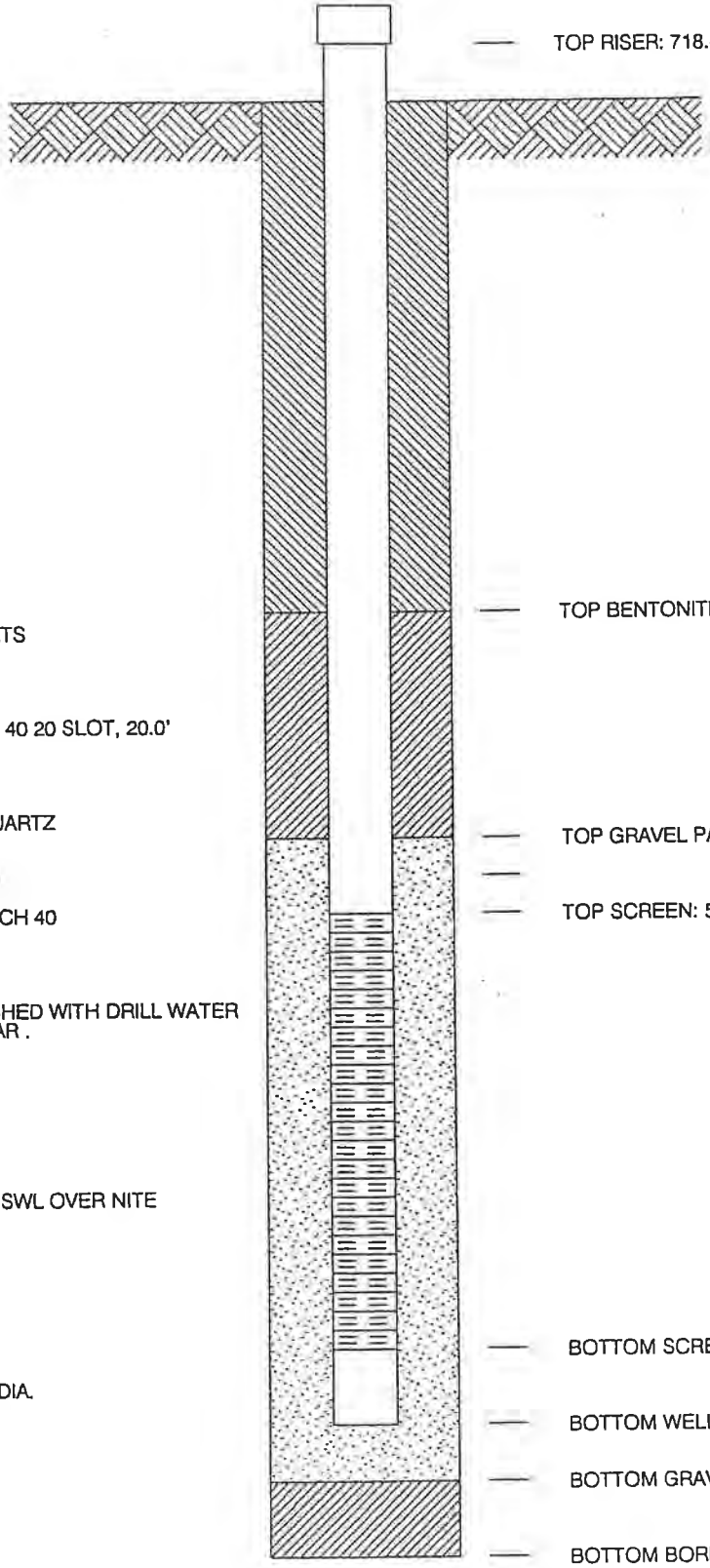
WELL No. R-93108 BORING No. R-93108 INSTALLED 08/10/93

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 345,307.0 E 2,104,199.8

SYSTEM STATE PLANE

GROUND ELEVATION 716.72 FT.



GROUT SEAL: VOLCLAY

BENTONITE SEAL: PI PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 20.0'

GRAVEL PACK: #4 OHIO QUARTZ

RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: BORING FLUSHED WITH DRILL WATER UNTILL VISUALLY CLEAR .

SPIDERS 150.0,140.0,130.0. SWL OVER NITE 42.2.8-17-93 SWL 16.8

HOLE REAMED TO 5 7/8"D DIA.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

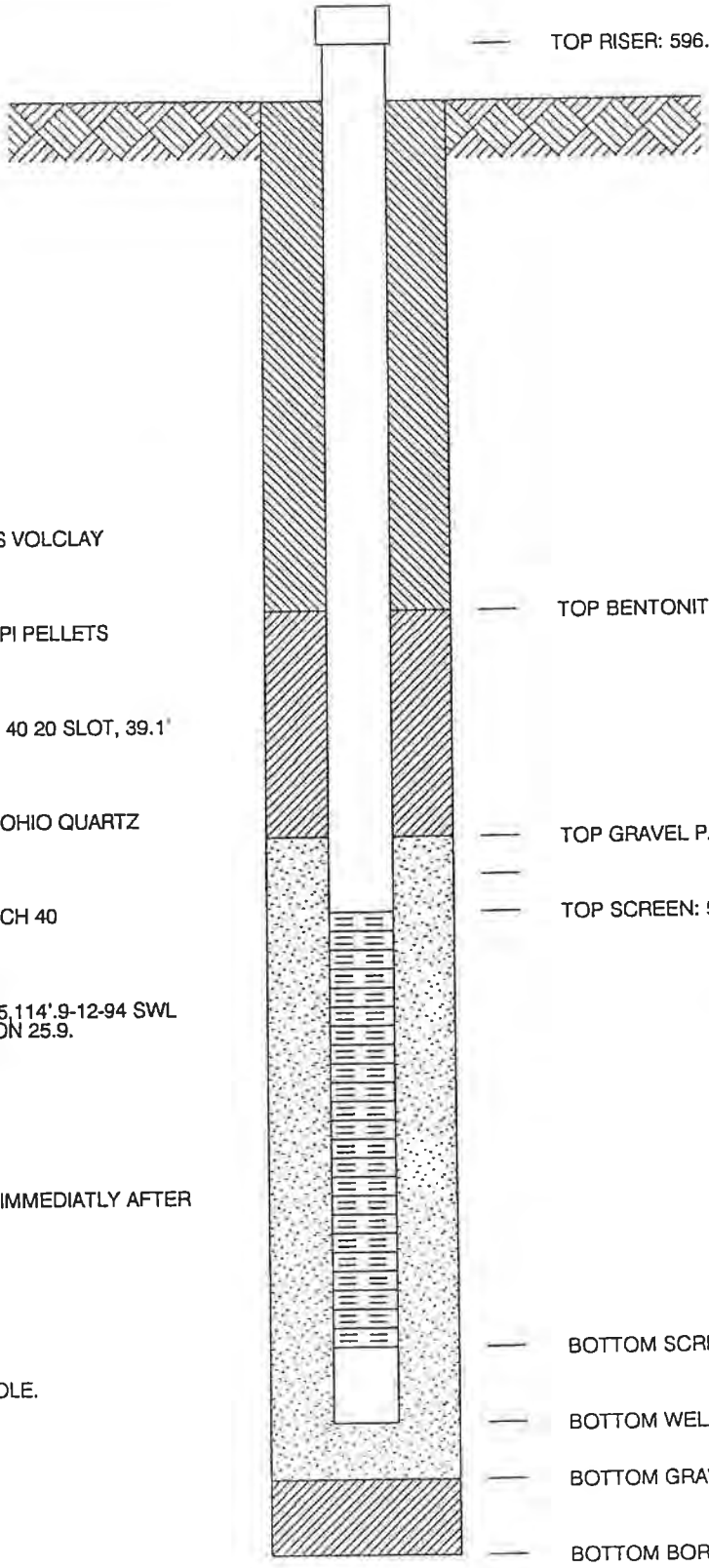
WELL No. R-94136 BORING No. R-94136 INSTALLED 09/08/94

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 347,038.0 E 2,104,957.2

SYSTEM STATE PLANE

GROUND ELEVATION 594.00 FT.



GROUT SEAL: 450 GALLONS VOLCLAY

BENTONITE SEAL: 150 LBS PI PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 39.1'

GRAVEL PACK: 750 LBS #4 OHIO QUARTZ

RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: SPIDERS 25,75,114'.9-12-94 SWL PRIOR TO INSTALLATION 25.9.

SWL RECOVERED TO 27.2' IMMEDIATLY AFTER INSTALLATION.

SWL 9-12-94 25.9. 8" DIA. HOLE.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

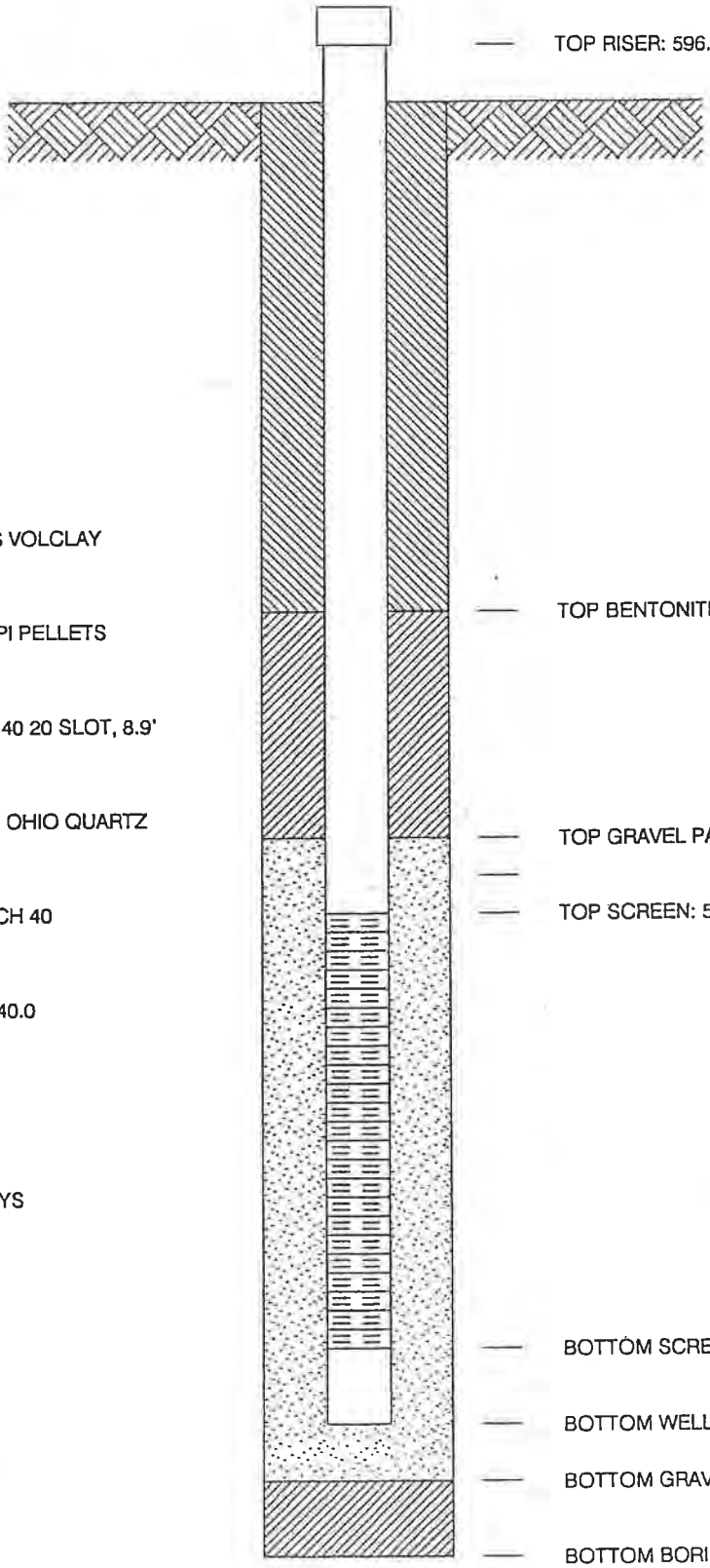
WELL No. R-94137 BORING No. R-94137 INSTALLED 09/07/94

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 347,033.7 E 2,104,959.4

SYSTEM STATE PLANE

GROUND ELEVATION 594.00 FT



GROUT SEAL: 250 GALLONS VOLCLAY

BENTONITE SEAL: 150 LBS.PI PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 8.9'

GRAVEL PACK: 1150 LBS #4 OHIO QUARTZ

RISER PIPE: 2.0, dia., PVC SCH 40

COMMENTS: SPIDERS 49.0,40.0

9-6-94 SWL 21.6 AFTER 5 DAYS

5 7/8" DIA. HOLE.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER WO#0820

COMPANY OHIO POWER COMPANY

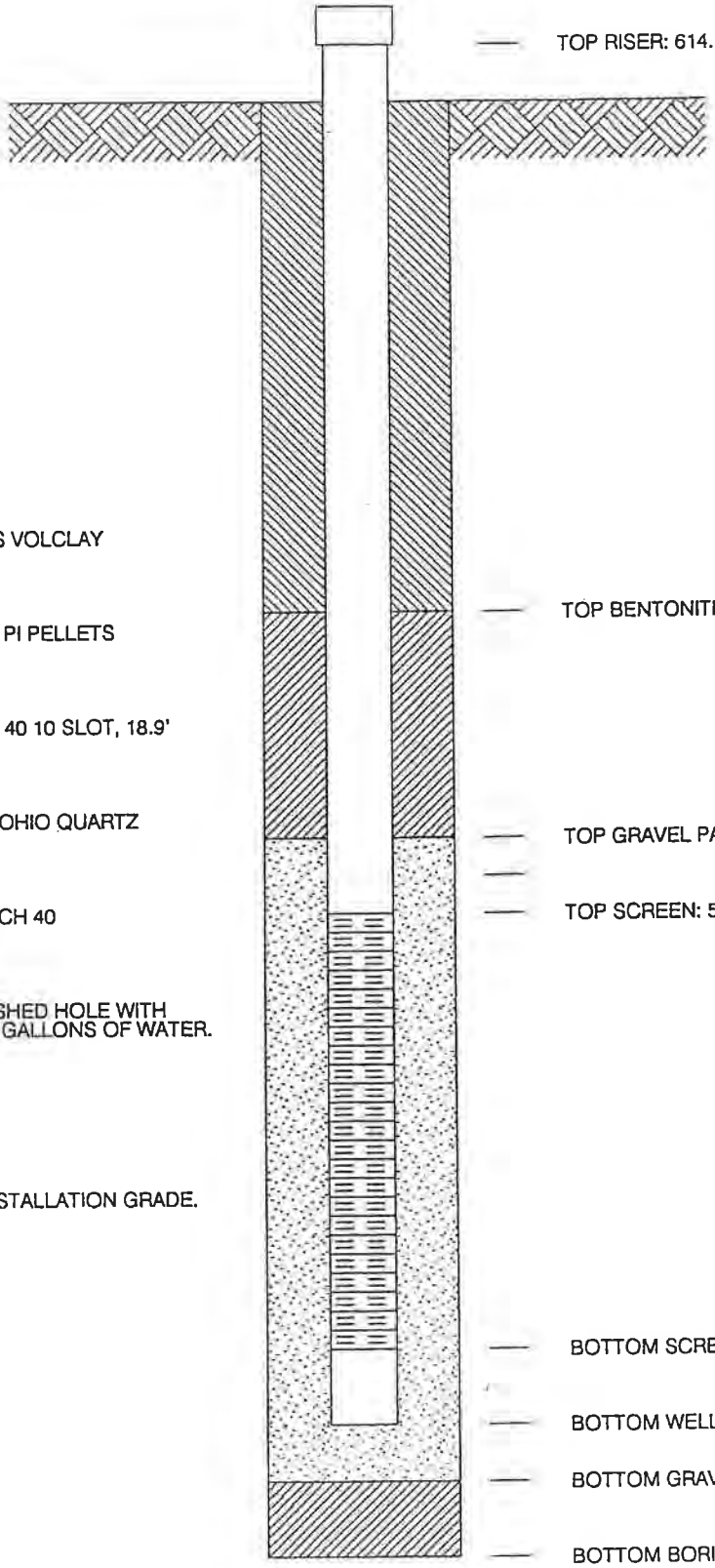
WELL No. R-94139 BORING No. R-94139 INSTALLED 07/21/94

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 345,099.4 E 2,103,292.9

SYSTEM STATE PLANE

GROUND ELEVATION 612.00 FT



TOP RISER: 614.11 FT.

GROUT SEAL: 200 GALLONS VOLCLAY

BENTONITE SEAL: 150 LBS. PI PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 10 SLOT, 18.9'

GRAVEL PACK: 300 LBS #4 OHIO QUARTZ

RISER PIPE: 2.0, dia., PVC SCH 40

TOP BENTONITE SEAL: 579.75 FT

TOP GRAVEL PACK: 573.45 FT.

TOP SCREEN: 570.75 FT.

COMMENTS: 6" HOLE. FLUSHED HOLE WITH APPROXIMATELY 1000 GALLONS OF WATER.

SPIDERS 40',60'. SWL AT INSTALLATION GRADE.

BOTTOM SCREEN: 551.85 FT.

BOTTOM WELL: 550.75 FT.

BOTTOM GRAVEL PACK: 549.75 FT

BOTTOM BORING: 498.00 FT.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER 1461

COMPANY OHIO POWER COMPANY

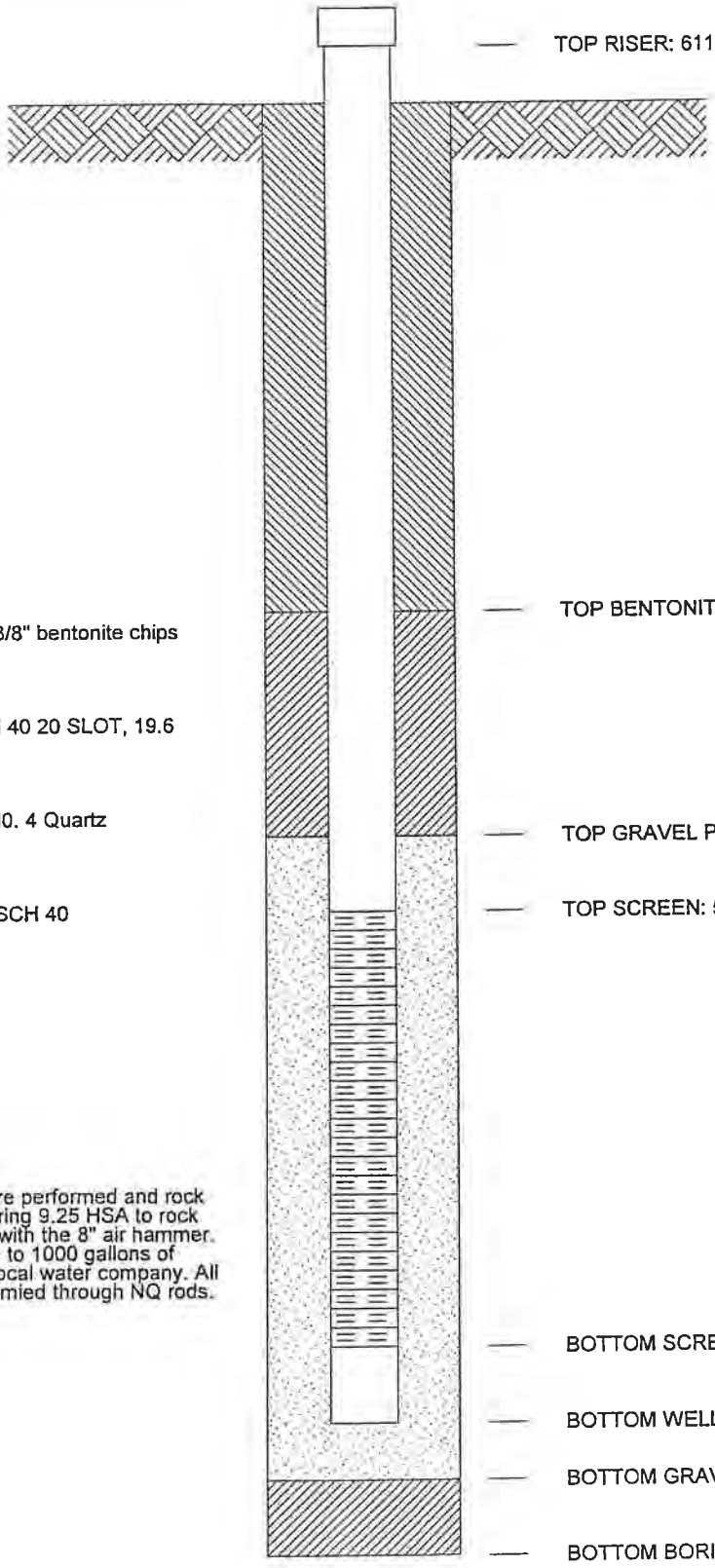
WELL No. R-9801 BORING No. R-9801 INSTALLED 12/3/98

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 349,605.8 E 210,345.0

SYSTEM State Plane using NADA27

GROUND ELEVATION 609.77 FT.



GROUT SEAL: Quick Grout

BENTONITE SEAL: 150 lbs 3/8" bentonite chips

SCREEN: 2.0 dia., PVC SCH 40 20 SLOT, 19.6

GRAVEL PACK: 1550 Lbs. N0. 4 Quartz

RISER PIPE: 2.0, dia., PVC SCH 40

SPACERS, DEPTH:

Standard penetration test were performed and rock core taken prior to augering 9.25 HSA to rock and advancing the hole with the 8" air hammer. Used approximately 750 to 1000 gallons of potable water from the local water company. All back fill material was tremied through NQ rods.

GEOMCNST R1R2.GPJ FULL.GDT 2/2/99

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER 1461

COMPANY OHIO POWER COMPANY

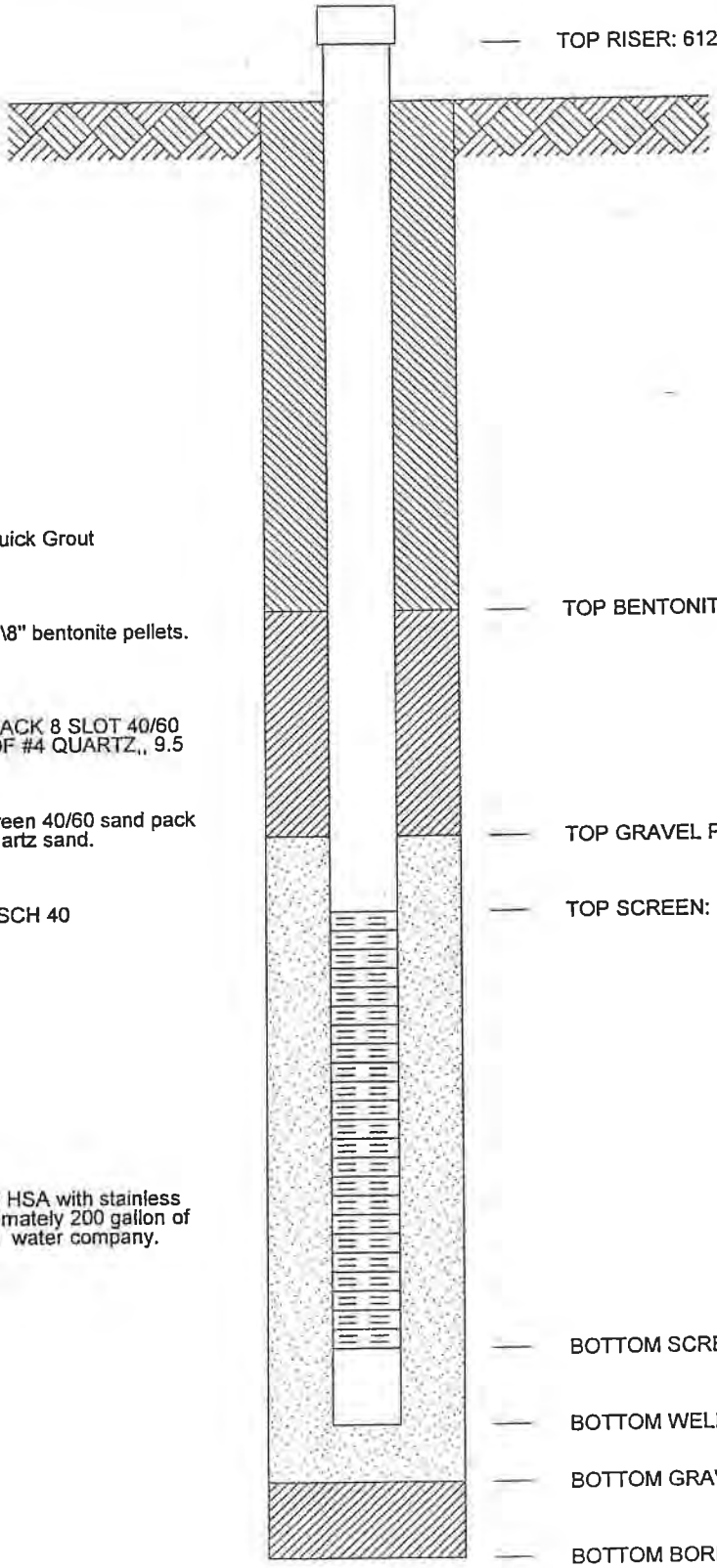
PROJECT GAVIN FGD RETROFIT PROJECT

WELL No. R-9802 BORING No. R-9802 INSTALLED 12/2/98

COORDINATES N 349,620.2 E 2,103,019.8

SYSTEM State Plane using NADA27

GROUND ELEVATION 610.39 FT.



TOP RISER: 612.39 FT.

TOP BENTONITE SEAL: 575.39 FT.

TOP GRAVEL PACK: 573.39 FT.

TOP SCREEN: 571.39 FT.

BOTTOM SCREEN: 561.29 FT.

BOTTOM WELL: 560.79 FT.

BOTTOM GRAVEL PACK: 560.39 FT.

BOTTOM BORING: 560.39 FT.

GROUT SEAL: 50 Gallons Quick Grout

BENTONITE SEAL: 75 lbs. 3\8" bentonite pellets.

SCREEN: 4 x 5.2 dia., PREPACK 8 SLOT 40/60 PACK PLUS 400 LBS OF #4 QUARTZ,, 9.5

GRAVEL PACK: Prepack screen 40/60 sand pack with 400 lbs. of No. 4 quartz sand.

RISER PIPE: 4.0, dia., PVC SCH 40

SPACERS, DEPTH:

Well was installed using 9.25 HSA with stainless knock out plate. Approximately 200 gallon of potable water from local water company.

GEOMCNST R1R2.GI: FULL.GDT 2/2/99

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER 1461

COMPANY OHIO POWER COMPANY

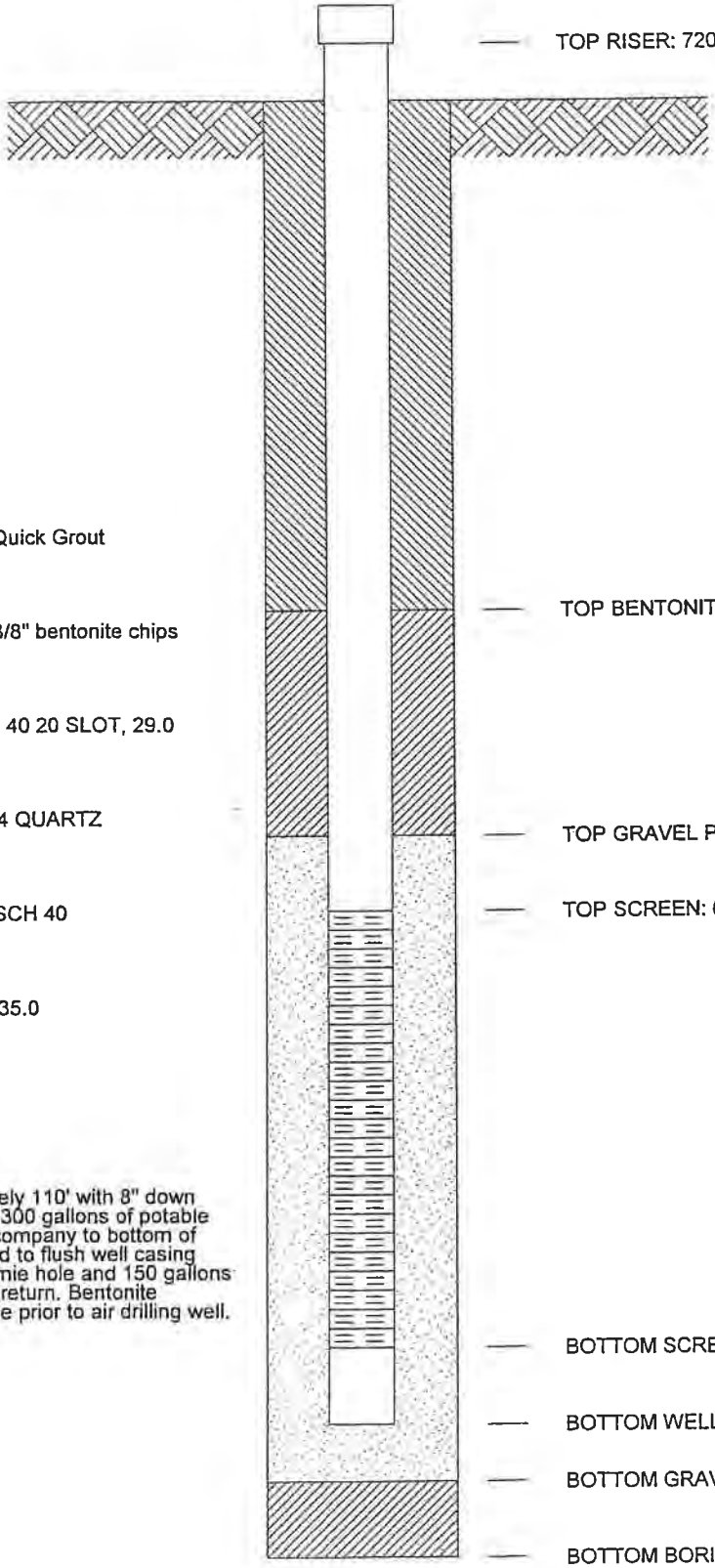
WELL No. R-9806 BORING No. R-9806 INSTALLED 12/29/98

PROJECT GAVIN FGD RETROFIT PROJECT

COORDINATES N 349,056.1 E 2,103,324.6

SYSTEM State Plane using NADA27

GROUND ELEVATION 718.29 FT.



TOP RISER: 720.29 FT.

TOP BENTONITE SEAL: 614.79 FT.

TOP GRAVEL PACK: 610.09 FT.

TOP SCREEN: 607.29 FT.

BOTTOM SCREEN: 578.29 FT.

BOTTOM WELL: 577.29 FT.

BOTTOM GRAVEL PACK: 577.29 FT

BOTTOM BORING: 568.89 FT.

GROUT SEAL: 300 Gallons Quick Grout

BENTONITE SEAL: 150 lbs 3/8" bentonite chips

SCREEN: 2.0 dia., PVC SCH 40 20 SLOT, 29.0

GRAVEL PACK: 1250 LBS #4 QUARTZ

RISER PIPE: 2.0, dia., PVC SCH 40

SPACERS, DEPTH: 116.0, 135.0

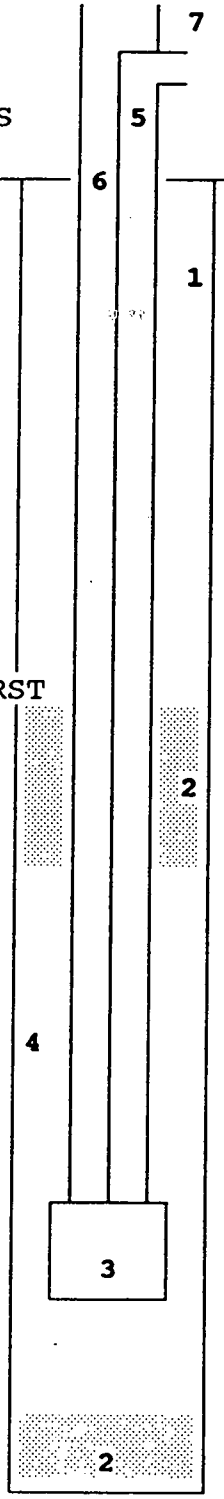
Well drilled dry to approximately 110' with 8" down hole hammer then used 300 gallons of potable water from local water company to bottom of hole. The crew attempted to flush well casing after installation with tremie hole and 150 gallons of potable water with no return. Bentonite backfilled 3' NQ core hole prior to air drilling well.

GEOMCNST R1R2.G_FULL.GDT 2/2/99

COMPANY OPCO GAVIN PLANT
PROJECT FGD LANDFILL
COORDINATES N.348462.47 E.2104474.65 ✓
DATE INSTALLED 2-8-93

WELL CONSTRUCTION SUMMARY ELEVATION (ft. NGVD)
WELL NO. R-9396
REF. DATUM PT. 616.22
GRADE 613.61

NOTE: CASING PROTECTOR DETAILS NOT SHOWN



1 GROUT SEAL
2 BENTONITE SEAL
3 GEOMON UNIT
4 GRAVEL PACK
5 CONTINUOUS UNKINKED NYLON TUBING EXTENDED TO TOP OF CHECK VALUE
6 CASING
7 BRASS 'Y'FITTING
2-9-93 8:40 SWL PRIOR TO FIRST PURGING 7.1.

RECOVERED TO 96.4 .
SWL 8:10 AM 2-10-93 91.6

VOLCLAY GROUT FROM 523.71 TO GRADE.

TOP OF BENTONITE SEAL 523.71

TOP OF GRAVEL PACK 518.62

CHECK VALUE 499.41
TOP OF SCREEN 498.81
BOTTOM OF SCREEN 496.81
GEOMON TIP 496.41

BOTTOM OF GRAVEL PACK 495.61

BOTTOM OF BORE HOLE 492.21

OTECHNICAL ENGINEERING SECTION
VIL ENGINEERING DESIGN

AMERICAN ELECTRIC POWER SERVICE CORPORATION

GEOMON WELL
CDS-04C

This is log for 9396

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 348,462.4 E 2,104,474.6**

GROUND ELEVATION **613.6** SYSTEM

Water Level, ft	**19.4**		
TIME	**8:38**		
DATE	**1-4-93**		

BORING NO. **R-93096** DATE **11/24/10** SHEET **1** OF **5**

BORING START **2/2/93** BORING FINISH **2/8/93**

PIEZOMETER TYPE WELL TYPE **GM**

HGT. RISER ABOVE GROUND **616.22** DIA **1"**

DEPTH TO TOP OF WELL SCREEN **498.81** BOTTOM **496.81**

WELL DEVELOPMENT BACKFILL **VOLCLAY**

FIELD PARTY **TJH-TLS** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	3.7	5.2	4-6-7	.8					**BROWN,TAN,GRAY SANDY SILT**		
2	SS	8.7	10.2	4-7-9-	.9		5					
3	SS	13.7	15.2	3-7-12	.8		10			**RED SILTY CLAY**		
4	SS	18.7	20.2	4-10-22	1.3		15			**RED,TAN,YELLOW CLAYSTONE** weathered.		

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93096** DATE **11/24/10** SHEET **2** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
5	SS	23.7	24.5	18-50/.3	.8					**RED CLAY SHALE**		
6	NQ	24.5	25.0		0	0	25					
7	NQ	25.0	35.0		10.0	74				**RED CLAYSTONE**		
										GRAY SANDY CLAYSTONE		
							30					
8	NQ	35.0	45.0		10.0	86	35			**RED CLAYSTONE**		
										GRAY SHALEY CLAYSTONE		
							40			**RED SHALEY CLAYSTONE**		
9	NQ	45.0	55.0		10.0	94	45			**RED,TAN,YELLOW CLAYSTONE** With limestone nodules.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93096** DATE **11/24/10** SHEET **3** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							50					
10	NQ	55.0	65.0		7.1	37	55					
							60					
11	NQ	65.0	75.0		10.0	87	65					
							70					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

BORING NO. **R-93096** DATE **11/24/10** SHEET **4** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
12	NQ	75.0	85.0		10.0	63	75			**RED CLAY SHALE**		
13	NQ	85.0	95.0		10.0	71	80					
14	NQ	95.0	100.0		4.8	90	85			**RED,TAN,YELLOW CLAYSTONE**		
							90			**GRAY SHALEY LIMESTONE**		89.9 Top of bentonite seal.
										GRAY LIMESTONE		
										RED SHALEY LIMESTONE		
										GRAY SHALEY LIMESTONE Badly broken.		
										GRAY SILTY SHALE		
							95			**GRAY SANDY SHALE**		95.0 Top of gravel pack.

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-93096** DATE **11/24/10** SHEET **5** OF **5**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **2/2/93** BORING FINISH **2/8/93**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										RED AND GRAY SANDY SHALE		
15	NQ	100.0	105.0		5.0	98	100			**GRAY SILTY SHALE** Well cemented		
16	NQ	105.0	115.0		9.9	99	105					
							110					
17	NQ	115.0	121.4		6.4	89	115					114.2 Check value. 114.8 Top of screen. 116.8 Bottom of screen. 117.2 Tip of geomon. 118.0 Bottom of gravel pack.
							120			**RED,TAN,YELLOW CLAYSTONE**		124.4 Bottom of boring.

AEP R1R2.GPJ AEP.GDT 11/24/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY

PROJECT **GAVIN FGD CONVERSION PROJECT**

COORDINATES **N 345,817.3 E 2,104,954.5**

GROUND ELEVATION **706.7** SYSTEM **STATE PLANE**

Water Level, ft	▽ 0.0	▼ 130.2	▼
TIME	07:30	07:15	
DATE	10-16-96	10-17-96	

BORING NO. **R-9631** DATE **11/29/10** SHEET **1** OF **10**

BORING START **10/14/96** BORING FINISH **10/17/96**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND DIA **2.0**

DEPTH TO TOP OF WELL SCREEN **187.1** BOTTOM **225.9**

WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**

FIELD PARTY **TJH-RLY-JCM** RIG **CME-75**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	0.0	1.5	4-6-9	1.0				SC	**DARK BROWN SANDY CLAY** Moist, with trace of coal and gravel size sandstone fragments (fill).		
2	SS	1.5	3.0	7-6-6	1.5				CL	**GRAY CLAY** Moist, with clayshale gravel size shale fragments (fill).		
3	SS	3.0	4.5	4-4-7	1.5							
4	SS	4.5	6.0	7-4-6	1.4		5					
5	SS	6.0	7.4	3-3-50/.4	1.4					**GRAY CLAYSHALE** Dry.		Bailed hole dry water recovered 148.8 to 130.6 30 minutes. Bailed hole dry water recovered 149.6 to 132.6 17 minutes. 6:00 static water level ofter installation hole dry. 10-30-96 7:45 swl 233.0' 10' solid pipe sealed in bottom of hole with bentonite below monitoring zone as a reservoir.
6	SS	7.5	7.9	50/.4	.4							
7	NQ	9.0	10.5		1.2	75	10			**DARK GRAY CLAYSHALE** Hard.		
8	NQ	10.5	15.5		5.0	63				**BLACK COAL**		
9	NQ	15.5	20.5		2.7	50	15			**DARK GRAY CLAYSHALE**		

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **JCM**

AEP R1R2.GPJ AEP.GDT 11/29/10

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **2** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
10	NQ	20.5	25.5		5.0	94						
11	NQ	25.5	35.5		9.9	85	25			**BLACK CARBONACEOUS SHALE** **GRAY LIMESTONE** Hard. **GRAY CLAYSHALE** Hard. **GRAY SANDY SHALE** Hard, limestone nodules		
							30					
							35					
12	NQ	35.5	45.5		9.4	86				**MOTTLED RED, GRAY, GREEN CLAYSHALE** Hard.		
							40			**GRAY SANDY CLAYSHALE** Hard, limestone nodules, pyrite.		
							45					
13	NQ	45.5	55.5		10.0	100						

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **3** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										LIGHT GRAY SANDSTONE Fine grain, well cemented.		
										BLUE GRAY SANDY SHALE Limestone nodules, pyrite, some shaley sandstone.		
							50			**Changing to light gray**		
										BLUE GRAY SANDSTONE V-fine grain, well cemented.		
14	NQ	55.5	65.5		9.8	98	55			**MOTTLED RED, PURPLE, GREEN, BLUE GREEN CLAYSHALE** Hard, sandy in area, hard.		
							60			**RED CLAYSHALE** Hard, limestone.		
15	NQ	65.5	75.5		10.0	100	65					
										LIGHT BLUE GRAY SHALEY SANDSTONE Hard.		
							70			**BLUE GRAY SANDSTONE** Fine grain, well cemented, hard.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **4** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							75			**GRAY CLAYSHALE** Hard. **RED CLAYSHALE** Hard.		
16	NQ	75.5	85.5		10.0	95	80			**MOTTLED BLACK, YELLOW, PURPLE, BROWN CLAYSHALE** Medium hard.		
										LIGHT GRAY SANDY CLAYSHALE Hard, more sand at bottom, soft layer 84.2, limestone nodules.		
17	NQ	85.5	95.5		10.0	100	85					
							90			**RED, YELLOW BROWN CLAYSHALE** Hard.		
										MOTTLED PURPLE RED, YELLOW, BROWN CLAYSTONE Soft		
18	NQ	95.5	105.5		10.0	83	95					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **5** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							100					
							105					
19	NQ	105.5	111.8		5.5	0						
							110					
										RED, BLUE GRAY CLAYSHALE Hard, limestone nodules.		
21	NQ	115.5	125.5		10.0	100	115					
20	NQ	118.8	122.5		3.7	100						
							120					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **6** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							125					
22	NQ	125.5	135.5		10.0	100						
							130					
23	NQ	135.5	145.5		10.0	100	135			**BLUE GRAY SANDSTONE** Fine grain, hard, well cemented, shale partings grading to sandstone at 136.5 **Vertical crack 136.8 to 138.3.**		
							140			**BLUE GRAY SANDY CLAYSHALE** Hard, pyrite. **RED CLAYSHALE** Hard, limestone nodules.		
24	NQ	145.5	155.5		10.0	100	145			**BLUE GRAY SANDY SHALE** Limestone nodules, pyrite, hard. **RED CLAYSHALE** Hard, limestone nodules. **BLUE GRAY CLAYSHALE** Hard, limestone nodules. **RED CLAYSHALE** Hard, limestone nodules.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **7** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										RED BLUE GREEN SANDY CLAYSTONE Medium hard, limestone nodules, changing to more red with depth.		
25	NQ	155.5	165.5		10.0	100	155					
							160					
26	NQ	165.5	175.5		10.0	100	165					
							170					
27	NQ	175.5	185.5		10.0	95	175					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **8** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							180					178.4 top of seal.
							185					185.1 top of sand.
												187.1 top of screen.
							190			**.4 LAYER GRAY SHALEY LIMESTONE**		
29		195.5	205.5		10.0	100	195					
28	NQ	198.5	208.5		10.0	100	200			**BLUE GRAY SHALEY SANDSTONE** Hard, limestone nodules.		
										RED CLAYSHALE Hard, limestone nodules.		
										BLUE GRAY CLAYSHALE Hard, limestone		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **9** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										nodules, changing to red 203.1 to 206.2.		
30	NQ	205.5	215.5		10.0	100	205			**BLUE GRAY SANDSTONE** Shale parting, v-fine grain, well cemented.		
										BLUE GRAY SANDY SHALE Sandstone partings, limestone.		
31	NQ	215.5	225.5		10.0	100	210					
							215					
							220					
32	NQ	225.5	235.3		9.8	100	225					225.9 bottom of screen. 227.0 bottom of sand.

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **R-9631** DATE **11/29/10** SHEET **10** OF **10**

PROJECT **GAVIN FGD CONVERSION PROJECT** BORING START **10/14/96** BORING FINISH **10/17/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										RED AND GRAY CLAYSHALE Hard.		
							230			**MOTTLED RED, GRAY, PURPLE SANDY CLAYSTONE** Medium hard, limestone nodules.		
							235			**Longitude 38 56 56.36749 N** **Latitude 82 07 51.01131 W**		

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

COORDINATES **N 355,372.6 E 2,065,722.5**

GROUND ELEVATION **777.3** SYSTEM **STATE PLANE**

WATER LEVEL	▽ 23.7	▼	▽
TIME			
DATE	6-26-96		

BORING NO. **96152** DATE SHEET **1** OF **5**

BORING START **06/25/96** BORING FINISH **06/27/96**

PIEZOMETER TYPE WELL TYPE **OW**

HGT. RISER ABOVE GROUND **2.16** DIA

DEPTH TO TOP OF WELL SCREEN **127.0** BOTTOM **166.0**

WELL DEVELOPMENT **YES** BACKFILL **QUICK GROUT**

FIELD PARTY **MCR-REB-JCM** RIG **BK-81**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							0					
									SP	**BROWN SANDSTONE** Dry fine grain.		
							5			**BROWN AND GRAY SAND** Fine grain, dry.		Latitude 38 58 30.76511 N. = Longitude 082 09 28.87729 W.
							10		SC	**BROWN SANDY CLAY** Moist, fine grain with 3/4" gravel.		
							15		SP	**BROWN SAND** Moist, fine grain.		
							20				▽	
							25					
							30					
										BROWN AND GRAY CLAYSHALE Dry.		
							35			**N6 MEDIUM LIGHT GRAY LIMESTONE** Vertical crack from 37.8-38.8.		
							40			**N6 MEDIUM GRAY CLAY SHALE**		
							45					

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TYPE OF CASING USED

X	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
X	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **REB**

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING NO. **96152** DATE SHEET **2** OF **5**

BORING START **06/25/96** BORING FINISH **06/27/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										10YR 4/6 MODERATE REDDISH BROWN CLAY SHALE		
										5YR 4\2 GRAYISH RED SANDY SHALE		
							55			5R 5/4 MODERATE RED CLAYSHALE N5 MEDIUM GRAY CLAYSHALE		
										N7 LIGHT GRAY SANDY SHALE		
							60			MOTTLED GRAY, RED, GREEN CLAYSHALE		
							65			N7 LIGHT GRAY SANDY SHALE		
										LIGHT GRAY CLAYSHALE		
							70			5R 4/2 GRAY REDDISH CLAYSTONE RETURN WATER pH 7.22 COND 925 DRILL WATER pH 6.86 COND 869		
							75			N5 MEDIUM GRAY SANDY SHALE		
							80			RED AND GRAY CLAYSTONE With calcite.		
										RED AND GRAY CLAYSHALE		
										5R 4/6 MODERATE RED CLAYSTONE		
							85			5R 4/6 MODERATE RED CLAYSHALE		
										MOTTLED RED, GREEN, GRAY CLAYSTONE		
							90			MOTTLED GRAY, GREEN, RED CLAYSHALE		
										5GY 6/1 REDDISH GRAY CLAYSTONE		
							95			10R 4\2 GRAYISH GREENISH RED CLAYSHALE		
							100			10R3\4 DARK REDDISH BROWN CLAYSTONE		Lost all return water 97.0
							105			MOTTLED RED, GRAY, BROWN CLAYSHALE		
										MOTTLED RED, BROWN, GRAY CLAYSTONE		
							110					
										10R 4\6 MODERATE REDDISH BROWN		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96152** DATE SHEET **3** OF **5**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **06/25/96** BORING FINISH **06/27/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							120			CLAYSHALE 5R 4\6 MODERATE RED CLAYSTONE 5R 4\6 MODERATE RED CLAYSHALE		118.0 Top of seal.
							125			N6 MEDIUM LIGHT GRAY SANDY SHALE		124.1 Top of sand.
							130					
							135			N6 MEDIUM LIGHT GRAY SANDSTONE With shale streaks.		
							140					
							145			N6 MEDIUM LIGHT GRAY CLAYSHALE With pyrite. 10R 3\4 DARK REDDISH BROWN CLAYSHALE		
							150			N5 MEDIUM GRAY SANDY SHALE N7 LIGHT GRAY SANDSTONE Well cemented.		Regained all drill water.
							155			N7 LIGHT GRAY SANDY SHALE N7 MEDIUM DARK GRAY CLAYSHALE With calcite and limestone nodules.		Used 3500 gallons of drill water.
							160					
							165			N5 MEDIUM GRAY SANDY SHALE N7 LIGHT GRAY SANDSTONE		166.0 Bottom of screen.
							170			N4 MEDIUM DARK GRAY CLAYSHALE 5R 4\6 MODERATE RED AND GRAY CLAYSHALE N5 MEDIUM GRAY CLAYSTONE With limestone nodules.		169.1 Bottom of sand.
							175			5R 4\6 MODERATE RED CLAYSTONE With limestone nodules.		
										N6 MEDIUM LIGHT GRAY CLAYSTONE GRAY LIMESTONE 10R 4\6 MODERATE REDDISH BROWN		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

BORING NO. **96152** DATE SHEET **4** OF **5**

BORING START **06/25/96** BORING FINISH **06/27/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										CLAYSTONE N5 MEDIUM GRAY CLAYSHALE RED AND GRAY CLAYSHALE		
							185			MOTTLED RED, GRAY, BROWN CLAYSTONE With limestone nodules.		
							190					
							195					
							200					
							205			MOTTLED RED GRAY, BROWN CLAYSTONE With limestone nodules.		
							210					
							215			N6 MEDIUM LIGHT GRAY SANDY SHALE N6 MEDIUM LIGHT GRAY CLAYSHALE With calcite and limestone nodules.		Used 5000 gallons of drill water.
							220					
							225			N7 LIGHT GRAY SANDSTONE		
							230			N7 LIGHT GRAY SANDY SHALE		
							235					
							240					

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY **OHIO POWER COMPANY** BORING NO. **96152** DATE _____ SHEET **5** OF **5**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **06/25/96** BORING FINISH **06/27/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	SAMPLE DEPTH IN FEET TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										N6 MEDIUM LIGHT GRAY CLAYSHALE		
							250					
										N1 BLACK CLAYSHALE		
							255					

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

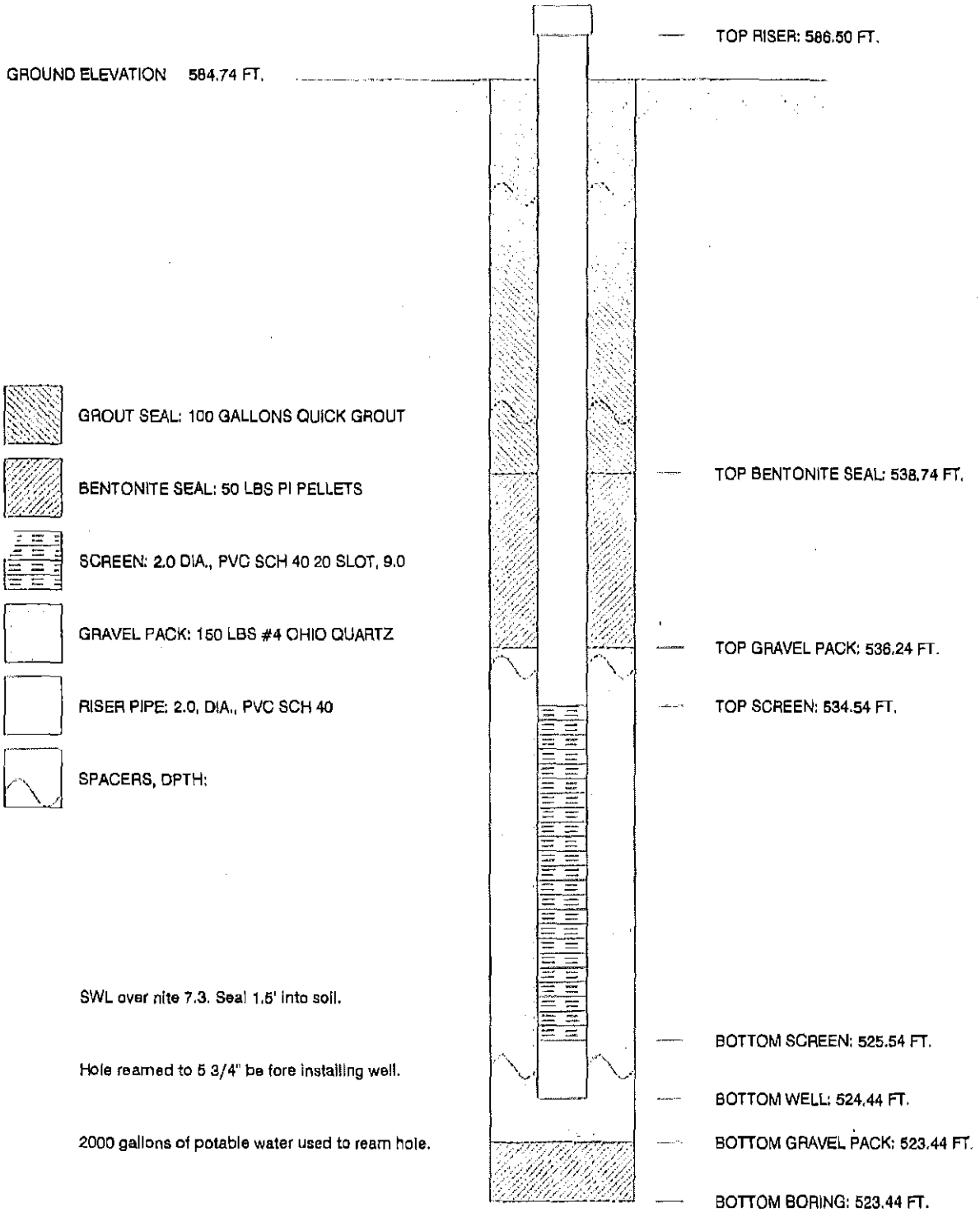
JOB NUMBER

COMPANY **OHIO POWER COMPANY** WELL No. **96158** BORING No. **96158** INSTALLED **11/29/95**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

COORDINATES **N 351,115.0 E 2,070,634.8**

SYSTEM **STATE PLANE**



SWL over nite 7.3. Seal 1.5' into soil.

Hole reamed to 5 3/4" be fore installing well.

2000 gallons of potable water used to ream hole.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER _____

COMPANY OHIO POWER COMPANY

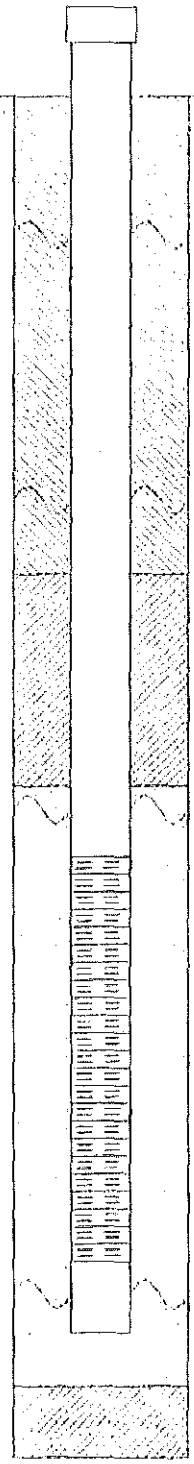
WELL No. 96157 BORING No. 96157 INSTALLED 11/21/95

PROJECT GAVIN PLANT FLY ASH POND CLOSURE

COORDINATES N 351,118.0 E 2,070,648.6

SYSTEM STATE PLANE

GROUND ELEVATION 584.59 FT.



TOP RISER: 586.52 FT.

TOP BENTONITE SEAL: 557.89 FT.

TOP GRAVEL PACK: 553.39 FT.

TOP SCREEN: 546.89 FT.

BOTTOM SCREEN: 537.89 FT.

BOTTOM WELL: 536.79 FT.

BOTTOM GRAVEL PACK: 536.79 FT.

BOTTOM BORING: 536.49 FT.

GROUT SEAL: 50 GALLONS QUICK GROUT

BENTONITE SEAL: 125 LBS PI PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 9.0

GRAVEL PACK: 475 LBS #4 OHIO QUARTZ

RISER PIPE: 2.0, DIA., PVC SCH 40

SPACERS, DPTH:

Approximately 150 gallons of potable water to drill hole.

SWL 7.2 after 5 days.

SWL over nite 38.6, Hole drilled using 6.25 HSA.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

COORDINATES **N 352,338.7 E 2,061,912.6**

GROUND ELEVATION **851.8** SYSTEM **STATE PLANE**

WATER LEVEL	▽ 72.2	▼ 66.9	▽ 77.3
TIME			
DATE	1-9-96	1-10-96	1-11-96

BORING NO. **96156** DATE SHEET **1** OF **6**

BORING START **01/03/96** BORING FINISH **01/11/96**

PIEZOMETER TYPE WELL TYPE **GM**

HGT. RISER ABOVE GROUND DIA **1.0**

DEPTH TO TOP OF WELL SCREEN **220.1** BOTTOM **222.1**

WELL DEVELOPMENT **YSEE NOTES** BACKFILL **QUICK GROUT**

FIELD PARTY **MCR-RLY-PDK** RIG **BK-81**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	SS	1.7	3.2	1-1-2	.1				CL	DECON AT GAVIN FAD 1-2-96 USING LEADING CREEK RUAL WATER BROWN CLAY		
2	SS	6.7	7.4	38-50/.2	.6		5			BROWN CLAY SHALE Dry.		Latitude 38 58 00.91662 N. = Longitude 082 10 17.26120 W.
3	SS	11.7	11.7	50/0	0		10					
4	SS	13.6	13.6	50/0	0	0				N6 MEDIUM LIGHT GRAY CLAYSHALE		
5	NQ	13.7	15.0		1.3	51	15			10YR 6\6 DARK YELLOWISH ORANGE SANDY CLAYSTONE		
6	NQ	15.0	24.0		9.0					10YR 6\6 DARK YELLOWISH ORANGE SANDSTONE		
7	NQ	24.0	30.0		1.6	0	20					
8	NQ	30.0	35.0		5.0	46	25					
9	NQ	35.0	45.0		10.0	83	30					
10	NQ	45.0	55.0		10.0	86	35					
							40					
							45					

TYPE OF CASING USED

X	NQ-2 ROCK CORE	
X	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"

Continued Next Page

PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER **MCR**

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96156** DATE SHEET **2** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
11	NQ	55.0	65.0		10.0	70	55			10YR 5\4 MODERATE YELLOWISH BROWN SANDSTONE		
										58.3 GRAY CLAY SEAM		
							60			5B 5\1 MEDIUM BLUISH GRAY SANDSTONE		
12	NQ	65.0	70.0		5.0	60	65			N5 MEDIUM GRAY SANDSTONE		
										N3 DARK GRAY CLAYSTONE		
13	NQ	70.0	75.0		5.0	60	70			N3 DARK GRAY CLAYSHALE		
14	NQ	75.0	79.0		4.0	50	75			N3 DARK GRAY CLAYSTONE Well cemented.		
										BLACK COAL		
15	NQ	79.0	79.2		.2	46				N4 MEDIUM DARK GRAY CLAYSHALE Soft.		
16	NQ	79.2	84.8		4.9		80			BLACK COAL		
										N4 MEDIUM DARK GRAY CLAYSHALE		
17	NQ	84.8	94.8		10.0	60	85					
							90					
18	NQ	94.8	97.3		2.5	0	95			N4 MEDIUM DARK GRAY CLAYSHALE With limestone.		
										DARK GRAY SANDY LIMESTONE Hard.		
19	NQ	97.3	104.8		7.0					Drill water pH 7.45, return water 7.20 Summer field		
										GRAY CLAYSHALE		
							100					
20	NQ	104.8	113.8		9.0	62	105			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE Soft.		
							110					
21	NQ	113.8	119.8		6.0	83				5b 5\1 MEDIUM BLUISH GRAY CLAYSTONE		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96156** DATE SHEET **3** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										Well cemented.		
22	NQ	119.8	124.8		5.0	80	120			5rp 4\2 GRAYISH RED PURPLE CLAYSTONE With high angle fracture at 121.9. 5B 5\1 MEDIUM BLUISH SANDY CLAYSTONE Well cemented.		
23	NQ	124.8	134.8		10.0	90	125					Used approximately 3000 gallons of water to this point.
							130					
24	NQ	134.8	144.8		10.0	83	135			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE		
										N5 MEDIUM GRAY SANDY CLAYSTONE CLARKSBURG LS HORIZON		
							140			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE		
25	NQ	144.8	154.8		10.0	63	145			5YR 4\1 BROWNISH GRAY CLAYSHALE		
							150					
26	NQ	154.8	164.8		10.0	46	155			10YT 4\2 DARK YELLOWISH BROWN CLAYSHALE Soft.		
							160					
27	NQ	164.8	174.8		10.0	46	165			10R 3\4 DARK REDDISH BROWN CLAYSHALE Soft.		
							170					171.0 Top of bentonite seal.
28	NQ	174.8	178.8			58	175			10R 4\6 MODERATE REDDISH BROWN CLAYSHALE Soft.		175.5 Top of sand.
29	NQ	178.8	184.8			60				10R 4\6 MODERATE REDDISH BROWN		Used approximately

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96156** DATE SHEET **4** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										CLAYSTONE Hard.		5000 gallons of water to this point.
										GRAY SANDY CLAYSTONE Hard.		
30	NQ	184.8	192.8		8.0	98	185			**5B 5\1 MEDIUM BLUISH GRAY SANDY SILTSTONE** Fine grain, well cemented.		
							190					
31	NQ	192.8	198.8		6.0	100				**SILTY SANDSTONE** Medium to fine grain, well cemented, cross bedding throughout.		
							195					
32	NQ	198.8	208.8		9.9	99				**N7 SANDY SILTSTONE** Fine grain, well cemented.		
							200					
							205			**N7 LIGHT GRAY SANDSTONE** Medium to fine grain, well cemented, cross bedding throughout.		
33	NQ	208.8	218.8		10.0	92						
							210					
										GRAY LIMESTONE Hard. ELK LICK		
							215					
34	NQ	218.8	228.8		10.0	83				**N6 MEDIUM LIGHT GRAY CLAYSTONE** Well cemented.		
							220			**MEDIUM DARK GRAY CLAYSHALE** Well cemented, hard.		219.6 Check valve. 220.1 Top of screen. 222.1 Bottom of screen. 224.0 Top of bottom seal.
										10R 4\2 GRAYISH RED CLAYSHALE		
							225					
35	NQ	228.8	238.8		9.4	81				**10R 4\2 GRAYISH RED CLAYSHALE**		Used approximately 6500 gallons of water to this point.
							230					
							235					
36	NQ	238.8	243.8		5.0	80				**10 R 2\2 VERY DUSKY RED CLAYSHALE** Hard.		
							240					
37	NQ	243.8	251.8		7.8	50				**N6 MEDIUM LIGHT GRAY CLAYSHALE** limestone nodules throughout.		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96156** DATE SHEET **5** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
							250			N6 MEDIUM LIGHT GRAY SHALEY LIMESTONE N6 MEDIUM LIGHT GRAY CLAYSHALE 10R 2\2 VERY DUSKY RED CLAYSHALE		
38	NQ	251.8	258.8		7.0	97	255			5G 6\1 GREENISH GRAY CLAYSTONE Hard with limestone nodules throughout.		
39	NQ	258.8	268.8		10.0	93	260			N6 MEDIUM LIGHT GRAY SILTSTONE Fine grain, well cemented, hard.		
40	NQ	268.8	275.8		7.0	57	265			5YR 4\1 BROWNISH GRAY CLAYSHALE 10R 2\2 VERY DUSKY RED CLAYSHALE Hard, soft weathered area at 270.4- 274.5.		
41	NQ	275.8	283.8		7.6	38	270			N6 MEDIUM LIGHT GRAY SILTY CLAY SHALE Hard.		
42	NQ	283.6	293.6		10.0	76	275			N6 MEDIUM LIGHT GRAY LIMESTONE Fracture bottom .3. N5 MEDIUM GRAY SILTY CLAYSHALE Medium hard, high angle fractures throughout.		Used approximately 8500 gallons of water to this point.
43	NQ	293.8	303.8		10.0	93	280			N5 MEDIUM GRAY SHALEY SANDSTONE Hard, fine to medium grain, cross bedding throughout.		
44	NQ	303.8	313.8		9.7	88	285					
							290					
							295					
							300					
							305					

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER

COMPANY **OHIO POWER COMPANY** BORING NO. **96156** DATE SHEET **6** OF **6**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE** BORING START **01/03/96** BORING FINISH **01/11/96**

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPH LOG	USCS	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
45	NQ	313.8	323.8		9.9	77	315			**N4 MEDIUM DARK GRAY SILTY CLAYSHALE** Fracture. **LIGHT GRAY SHALEY LIMESTONE** PORTERSVILLE LS **SILTY CLAY SHALE** **SANDY CLAYSTONE** Hard, fine grain, limestone nodules throughout, calcite deposits 319.0.		
46	NQ	323.8	333.8		10.0	96	320			**N5 MEDIUM GRAY SANDY CLAYSTONE** Hard, fine grain, calcite throughout.		
47	NQ	333.8	343.8		9.8	97	325			**N5 MEDIUM GRAY SILTY SANDSTONE** Hard, well cemented, fine grain, cross bedding throughout.		
48	NQ	343.8	353.8		10.0	99	330					
49	NQ	353.8	363.8		9.4	84	335			**N5 MEDIUM GRAY SANDSTONE** Hard, well cemented, medium grain, some cross bedding.		
							340					
							345					
							350					
							355					
							360			**N5 MEDIUM GRAY SANDY CLAYSTONE** Fine grain, soft area at 361.2-361.5		

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____

PROJECT **GAVIN FLY ASH POND CLOSURE**

COORDINATES _____

GROUND ELEVATION _____ SYSTEM _____

Water Level, ft	▽ 10.2	▼ 97.8	▽
TIME	7:00AM		
DATE	8/4/99	9/9/99	

BORING NO. **9910** DATE **3/7/12** SHEET **1** OF **7**

BORING START _____ BORING FINISH _____

PIEZOMETER TYPE _____ WELL TYPE _____

HGT. RISER ABOVE GROUND _____ DIA _____

DEPTH TO TOP OF WELL SCREEN _____ BOTTOM _____

WELL DEVELOPMENT _____ BACKFILL _____

FIELD PARTY _____ RIG _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										NO SPT SAMPLES TAKEN Drilled 3.25" HSA to top of bedrock and started coring		Water for drilling and deconning came from G-5 belt station using Leading Creek Corp. water.
							5					Deconned all tools and drill before starting to drill on 8/2/99.
							10				▽	Boring Geo-logged and grouted on 8/12/99
							15					

TYPE OF CASING USED

	NQ-2 ROCK CORE	
	6" x 3.25 HSA	
	9" x 6.25 HSA	
	HW CASING ADVANCER	4"
	NW CASING	3"
	SW CASING	6"
	AIR HAMMER	8"

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PIEZOMETER TYPE: PT = OPEN TUBE POROUS TIP, SS = OPEN TUBE SLOTTED SCREEN, G = GEONOR, P = PNEUMATIC

WELL TYPE: OW = OPEN TUBE SLOTTED SCREEN, GM = GEOMON

RECORDER _____

AEP_GAVIN_FLY_ASH_POND.GPJ AEP.GDT 3/7/12

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **9910** DATE **3/7/12** SHEET **2** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE** BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
1	NQ-2	23.9	29.8		5.6	45				**10R 3/4 DARK REDDISH BROWN CLAY SHALE**		
										N3 DARK GRAY CLAY SHALE		
2	NQ-2	29.8	39.8		8.6	88				**10R 3/4 DARK REDDISH BROWN CLAY SHALE** Slightly weathered		
										N4 MEDIUM DARK GRAY CLAY SHALE		
										10YR 5/4 MODERATE YELLOWISH BROWN & N5 MEDIUM GRAY CLAY SHALE		
										10R 3/4 DARK REDDISH BROWN CLAY SHALE		
3	NQ-2	39.8	49.8		7.1	99				**10R 3/4 DARK REDDISH BROWN CLAY SHALE** Slightly weathered		
										MULTI COLORED CLAY SHALE N5 MEDIUM GRAY, 10YR 6/6 DARK YELLOWISH ORANGE,& 5RP VERY DUSKY		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **9910** DATE **3/7/12** SHEET **3** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE** BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										RED PURPLE		
4	NQ-2	49.8	56.8		4.7	83				**5YR 3/4 MODERATE BROWN CLAY SHALE** With 5Y 5/6 LIGHT OLIVE GREEN & N6 MEDIUM LIGHT GRAY MARBLING THROUGHOUT Slightly weathered, semisoft		
5	NQ-2	56.8	64.8		8.3	77				**10R 4/6 MODERATE REDDISH BROWN CLAY SHALE** With N6 MEDIUM LIGHT GRAY MARBLING THROUGHOUT 10R 4/2 GRAYISH RED LIMESTONE NODULES AT 62.0' & 63.3'		
6	NQ-2	64.8	74.8		9.9	94				**10R 3/4 DARK REDDISH BROWN CLAY SHALE**		
										N4 MEDIUM DARK GRAY FINE GRAIN SANDSTONE Well cemented, hard		
										N4 MEDIUM DARK GRAY & N6 MEDIUM LIGHT GRAY SILTSTONE With cross bedding, hard, well cemented		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **9910** DATE **3/7/12** SHEET **4** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE** BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
7	NQ-2	74.8	84.8		9.9	76						Used 1800 gallons of drill water to this point - 74.8'
										N5 MEDIUM GRAY SILTY CLAY SHALE Well cemented & bonded, hard		
										10R 3/4 DARK REDDISH BROWN CLAY SHALE Slightly weathered from 80.8' - 84.2'		
8	NQ-2	84.8	94.8		9.9	95				**5B 5/1 MEDIUM BLUISH GRAY SILT STONE**		
										10R 3/4 DARK REDDISH BROWN CLAY SHALE With N5 MEDIUM GRAY LIMESTONE NODULES THROUGHOUT		
										N6 MEDIUM LIGHT GRAY & N2 GRAYISH BLACK FINE GRAIN SILT STONE With cross bedding		
9	NQ-2	94.8	104.8		10	93				**N4 MEDIUM DARK GRAY & N5 MEDIUM GRAY CLAY SHALE**		
										10R 3/4 DARK REDDISH BROWN & N3 DARK GRAY CLAY SHALE		
										5B 5/1 MEDIUM BLUISH GRAY FINE GRAIN		

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AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **9910** DATE **3/7/12** SHEET **5** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE** BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
										SANDY SILT STONE Well cemented, hard		
										N4 MEDIUM DARK GRAY CLAY SHALE With pyrite throughout		
										10R 3/4 DARK REDDISH BROWN CLAY SHALE		
10	NQ-2	104.8	114.8		9.8	60				**MULTI COLORED WEATHERED CLAY SHALE** 10R 3/4 DARK REDDISH BROWN, 5Y 6/4 DUSKY YELLOW, 5RP 2/2 VERY DUSKY RED PURPLE, 5Y 5/6 LIGHT OLIVE BROWN, & N3 DARK GRAY		
11	NQ-2	114.8	123.8		8.8	80				**MULTI COLORED WEATHERED CLAY SHALE** 10R 3/4 DARK REDDISH BROWN, 5Y 6/4 DUSKY YELLOW, 5RP 2/2 VERY DUSKY RED PURPLE, 5Y 5/6 LIGHT OLIVE BROWN, & N3 DARK GRAY With a lot of slick & slides		SWL at 10.2' on 8/4/99; NQ hole to 114.8'

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **9910** DATE **3/7/12** SHEET **6** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE** BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
12	NQ-2	123.8	133.8		9.5	65						
13	NQ-2	133.8	143.8		9.5	55						
14	NQ-2	143.8	152.8		9.0					**5RP 2/2 VERY DUSKY RED PURPLE CLAY SHALE** With limestone nodules		
										10R 3/4 DARK REDDISH BROWN & 10Y 4/2 GRAYISH OLIVE CLAY SHALE With cross bedding, slightly weathered		Used 3800 gallons of drill water to this

Continued Next Page

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

LOG OF BORING

JOB NUMBER _____

COMPANY _____ BORING NO. **9910** DATE **3/7/12** SHEET **7** OF **7**

PROJECT **GAVIN FLY ASH POND CLOSURE** BORING START _____ BORING FINISH _____

SAMPLE NUMBER	SAMPLE	SAMPLE DEPTH IN FEET FROM	SAMPLE DEPTH IN FEET TO	STANDARD PENETRATION RESISTANCE BLOWS / 6"	TOTAL LENGTH RECOVERY	RQD %	DEPTH IN FEET	GRAPHIC LOG	U S C S	SOIL / ROCK IDENTIFICATION	WELL	DRILLER'S NOTES
												point - 148.8'
										5BG 5/2 GRAYISH BLUE GREEN CLAY SHALE Well cemented		Stopped boring at 152.8' on 8/4/99 Flushed boring with approx. 700 gallons of water.

WELL NUMBER RB12-01/MW-20

Geosyntec consultants

CLIENT AEP
PROJECT NAME Gavin FAR Closure Site Investigation
PROJECT NUMBER CHE8273
PROJECT LOCATION Cheshire, OH
DATE STARTED 5/8/12 **COMPLETED** 5/10/12
GROUND ELEVATION 771.8 ft **HOLE SIZE** 5.5 inches
DRILLING CONTRACTOR Frontz Drilling
GROUND WATER LEVELS:
DRILLING METHOD Air Rotary/Rockcore
AT TIME OF DRILLING ---
LOGGED BY Jim Bannantine **CHECKED BY** J. Neil Couch
AT END OF DRILLING ---
NORTHING, EASTING 355665.7 N, 2063769.2 E
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					Casing Top Elev: 774.3 (ft) Casing Type: Schd. 80 PVC
0.5 (771.3)				CLAY (CL) -gray (7.5YR 5/1); some SILT and SAND; low to medium plastic; very stiff; moist	
	SC 1	38" / 60"		SAND (SW-SC) -reddish yellow (7.5YR 6/6 to 7.5YR 5/8); some CLAY; trace COAL; fine grained; mostly quartz; loose	
5.0 (766.8)					
	SC 2	45" / 60"		SAND (SW-SM) -light yellowish brown (2.5Y 6/3) to olive yellow (2.5Y 6/6); little silt; fine grained; mottled; stiff	
8.3 (763.6)					
8.5 (763.3)				COAL -dark gray (N3) to grayish black (N2); thinnly bedded, soft	
				SHALE/CLAYSTONE - medium gray (N5); thinly to very thinly bedded; soft to very soft; damp	
10.0 (761.8)					
	SC 3	48" / 48"		SHALE/CLAYSTONE - medium gray (N5); thinly to very thinly bedded; soft to very soft; damp	
14.0 (757.8)					
	RC 1	39" / 84"		SHALE - thinly bedded; some calcareous nodules; iron staining on fractured surfaces; breaks easily along bedding planes; trace pyrite near top	
15					
20					

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
20					
				1 ft - SHALE - as above from 14.0 to 21.0 ft 1 ft - SHALE - medium gray; hard; massive; conformable with overlying unit 3 FT - MUDSTONE - greenish black (5 G 2/1); some carbonaceous clasts; massive; some wet mud on fracture planes	
25	RC 2	60" / 120"			
30				31.0 740.8	
				0.1 ft to 0.2 ft - CLAYSTONE - medium gray (N5) to medium dark gray (N4); very dark red (5 R 2/6) carbonaceous nodules 0.1 ft - Soft gray mud 1.25 ft - SHALE / CLAYSTONE - medium dark gray (N4); some olive brown (5 Y 4/4) carbonaceous nodules; massive; soft; many bedding planes have slickenslided surfaces 1.58 ft - SANDSTONE - greenish gray (5GY 6/1) to dark gray (5 GY 4/1) to medium dark gray (N4); moderately hard	
35	RC 3	39" / 120"			
40				41.0 730.8	

(Continued Next Page)

CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	RC 4	80" / 120"		4.33 ft - SANDSTONE **TOP OF CONNELSVILLE SANDSTONE** - as above FROM 31.0 to 41.0 ft; some reddish carbonaceous nodules and thin silt layers; moderately hard 4-inch SHALE; thinly bedded 1.33 ft - CLAYSTONE/SILTSTONE - medium gray (N5); massive; soft 0.67 ft - CLAYSTONE - very dusky purple (5 RP 2/2); massive; moderately soft *(continued)*	
50				51.0 720.8	
55	RC 5	100" / 120"		CLAYSTONE/MUDSTONE - as above; medium bluish gray (5 B 5/1) to very dusky purple (5 RP 2/2); some cabonaceous nodules; breaks easily across some bedding planes; several slickensided surfaces	
60				61.0 710.8	
65				1.1 ft - SANDY SILTY SHALE - medium dark gray (N4), little pyrite 3.3 ft - CLAYSTONE/SILTSTONE **TOP OF CLARKSBURGH RED BEDS** - very dark red (5 R 2/6); thinly bedded in sections, thickly bedded in others; occassional very finely bedded gray shale; some slickensided surfaces 0.25 ft - **CLARKSBURGH LIMESTONE** - black (N7); massive; non-crystalline	

(Continued Next Page)

CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	RC 6	56" / 120"		1.1 ft - SANDY SILTY SHALE - medium dark gray (N4), little pyrite 3.3 ft - CLAYSTONE/SILTSTONE **TOP OF CLARKSBURGH RED BEDS** - very dark red (5 R 2/6); thinly bedded in sections, thickly bedded in others; occassional very finely bedded gray shale; some slickensided surfaces 0.25 ft - **CLARKSBURGH LIMESTONE** - black (N7); massive; non-crystalline *(continued)*	
				71.0 700.8	
75	RC 7	67" / 120"		SILTSTONE/MUDSTONE - light olive brown (5 Y 5/6) to dusky red (5 R 3/4); some calcareous nodules; massive; some slickensided surfaces	
80				81.0 690.8	
85	RC 8	0" / 120"		No Recovery	

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
90				No Recovery *(continued)*	
				91.0 680.8	
				No Recovery	
95	RC 9	0" / 120"			
100					Grout Seal
				101.0 670.8	
				SANDSTONE **MORGANTOWN SANDSTONE** - dusky yellowish green (10 GY 3/2) and dusky red (5 R 3/4) at about 108 ft depth; some SILTSTONE/MUDSTONE; some CLAYSTONE; little pyrite; massive	
105	RC 10	113" / 120"			Schd. 80 Solid Riser Pipe
110					
				111.0 660.8	

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	RC 11	102" / 120"		2.2 ft - SANDSTONE - grayish blue green (5 BG 5/2); some pyrite nodules; micaceous 6.3 ft - SILTSTONE to MUDSTONE - MUDSTONE is very thinly bedded to massive; breaks easily along some bedding planes; several slickensided surfaces *(continued)*	
120				121.0 650.8	
125	RC 12	115" / 120"		0.4 ft - MUDSTONE - as above from 111.0 to 121.0 ft; pyrite rich at base 1.6 ft - CLAYSTONE - dark reddish brown (10 R 3/4) to dusky red (5 R 3/4); some SILTSTONE; massive; some slickensided surfaces 6.8 ft - SANDY SHALE - grayish green (10 G 4/2); trace pyrite; micaceous; very thickly bedded; slickensided surfaces	
130				131.0 640.8	
				SANDY SHALE - as above from 121.0 to 131.0 ft	

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
135				134.8 637.1 135.3 SANDSTONE 636.6 - fine to medium grained quartz; micaceous; cross-bedded CLAYSTONE - dolomite nodules; calcareous; non-crystalline	
	RC 13	120" / 120"			
140				141.0 630.8 4.0 ft - CLAYSTONE - as above from 135.25 to 141.0 ft 2.0 ft - CLAYSTONE - calcareous; limestone nodules; trace pyrite; medium bluish gray (5 B 5/1) 2.0 ft - CLAYSTONE - grayish red purple (5 RP 4/2) to very dusky purple (5 RP 2/2); dark greenish yellow (10 Y 6/6) SILTSTONE lenses; conformable contact; slickensided surfaces	
145	RC 14	96" / 120"			
150				151.0 620.8 1.3 ft - CLAYSTONE - as above from 141.0 to 151.0 ft 0.4 ft - LIMESTONE - light gray (N7); fine grained; massive 0.7 ft - MUDSTONE - medium bluish gray (5 B 5/1) 0.9 ft - LIMESTONE - olive gray (5 Y 4/1); calcareous MUDSTONE 1.3 ft - SILTSTONE	
155	RC 15	56" / 120"			

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
160				1.3 ft - CLAYSTONE - as above from 141.0 to 151.0 ft 0.4 ft - LIMESTONE - light gray (N7); fine grained; massive 0.7 ft - MUDSTONE - medium bluish gray (5 B 5/1) 0.9 ft - LIMESTONE - olive gray (5 Y 4/1); calcareous MUDSTONE 1.3 ft - SILTSTONE *(continued)* 161.0 610.8	
165	RC 16	91" / 120"		4.5 ft - CLAYSTONE/SILTSTONE - very dark red (5 R 2/6) to dusky yellow (5 Y 6/4) 0.3 ft - CLAYSTONE - grayish green (10 GY 5/2) 2.75 ft - SILTSTONE - SANDY calcareous 171.0 600.8	
175	RC 17	103" / 120"		4.75 ft - SANDSTONE to SANDY SHALE - dark greenish gray (5 G 4/1); carbonaceous 0.1 ft - LIMESTONE 0.9 ft - SANDSTONE/LIMESTONE - calcareous 2.9 FT - SANDSTONE - grayish green (10 GY 5/2); fine to medium grained quartz; hard; massive	
180					

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
180					
				181.0 590.8 0.7 ft - SANDSTONE - as above from 171.0 to 181.0 ft 0.7 ft - MUDSTONE - medium gray (N5) 0.7 ft - CLAYSTONE - grayish red purple (5 RP 4/2) to brownish gray (5 YR 4/1)	
185	RC 18	26" / 120"			
190				191.0 580.8 1.4 ft - SANDSTONE to SANDY SHALE - greenish black (5 GY 2/1) 0.9 ft - LIMESTONE - bluish white (5 B 9.1) to greenish gray (5 GY 6/1) 2.4 ft - MUDSTONE - medium bluish gray (5 B 5/1)	
195	RC 19	57" / 120"			
200				201.0 570.8	Bentonite Seal

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
205	RC 20	90" / 120"		0.3 ft - MUDSTONE - as above from 191.0 to 201.0 ft 3.0 ft - SANDSTONE **TOP OF COW RUN SANDSTONE** - grayish blue green (5 BG 5/2); some SHALE 4.2 ft - SHALE - grayish blue green (5 BG 5/2); some SAND *(continued)*	
210				211.0 560.8	
215	RC 21	111" / 120"		SHALE and SANDY SHALE - grayish blue green (5 BG 5/2); some SANDSTONE; thinly to moderately bedded; moderately hard to hard	Filter Pack 10-slot PVC Screen
220				221.0 550.8	
225				SHALE - medium dark gray (N4); SANDY in some areas; thinly bedded; breaks easily across some bedding planes; some slickensided surfaces	

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CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
230	RC 22	93" / 120"		SHALE - medium dark gray (N4); SANDY in some areas; thinly bedded; breaks easily across some bedding planes; some slickensided surfaces *(continued)*	
				231.0	540.8
235				2.5 ft - SHALE **PORTERSVILLE LIMESTONE** - grayish black (N2) 1.1 ft - MUDSTONE/SHALE **TOP OF ANDERSON CLAY** - medium bluish gray (5 B 5/1) 2.0 ft - SILTSTONE and CLAYSTONE - medium bluish gray (5 B 5/1); calcareous; 2-inch MUDSTONE seam	
240	RC 23	67" / 120"			
				241.0	530.8
245	RC 24	23" / 120"		0.3 ft - MUDSTONE/SHALE - as above from 231.0 to 241.0 ft 0.7 ft - LIMESTONE **BLOOMFIELD LIMESTONE** - light olive gray (5 Y 6/1) to medium bluish gray (5 B 5/1); massive 0.8 ft - CLAYSTONE/SHALE **TOP OF BLOOMFIELD CLAY** - medium bluish gray (5 B 5/1); calcareous	Grout Seal

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Geosyntec consultants

WELL NUMBER RB12-01/MW-20

CLIENT AEP **PROJECT NAME** Gavin FAR Closure Site Investigation

PROJECT NUMBER CHE8273 **PROJECT LOCATION** Cheshire, OH

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY/ ATTEMPTED (RQD%)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
250				0.3 ft - MUDSTONE/SHALE - as above from 231.0 to 241.0 ft 0.7 ft - LIMESTONE **BLOOMFIELD LIMESTONE** - light olive gray (5 Y 6/1) to medium bluish gray (5 B 5/1); massive 0.8 ft - CLAYSTONE/SHALE **TOP OF BLOOMFIELD CLAY** - medium bluish gray (5 B 5/1); calcareous *(continued)* 251.0 520.8	
255	RC 25	18" / 120"		CLAYSTONE/SHALE - as above from 241.0 to 251.0 ft; very soft	
260				261.0 510.8	

Bottom of borehole at 261.0 feet.

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Geosyntec consultants
engineers | scientists | innovators

Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-03
Page: 1 of 4

Drilling Start Date:	03/18/2016 10:15	Boring Depth (ft):	75	Well Depth (ft):	52
Drilling End Date:	03/19/2016 10:45	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.11	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,727.9 E 2,101,388.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									Overburden. No samples collected. See 2016-04 log.		0
5											5
10											10
15											15
20											20

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-03
Page: 2 of 4

Drilling Start Date:	03/18/2016 10:15	Boring Depth (ft):	75	Well Depth (ft):	52
Drilling End Date:	03/19/2016 10:45	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.11	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,727.9 E 2,101,388.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20									Overburden. No samples collected. See 2016-04 log.		20
25				Run 1			48/ 120	77			25
30									(31') CLAYSTONE: moderately strong to weak, dusky red (10R 3/4), thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured. [CLARKSBURGH RED BEDS]		30
35				Run 2			78/ 120	63	(34.5') SANDSTONE: moderately strong to strong, olive (5Y 5/6), fine grained, slightly decomposed, slightly disintegrated, intensely fractured, micaceous, non-calcareous. [MORGANTOWN]		35
40											40

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-03

Drilling Start Date:	03/18/2016 10:15	Boring Depth (ft):	75	Well Depth (ft):	52
Drilling End Date:	03/19/2016 10:45	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.11	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,727.9 E 2,101,388.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40											40
45				Run 3			84/ 120	86	(46') Red Mud/CLAYSHALE: weak to moderately strong, dusky red (10R 3/4), thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.		45
50											50
55				Run 4			48/ 120	33	(55') SANDSTONE: strong, olive (5Y 5/6), fine grained, cross-bedded, slightly decomposed, slightly disintegrated, intensely fractured. [MORGANTOWN]		55
60									(59') Sandy CLAYSHALE: strong, bluish gray (5B 5/1), thickly bedded, slightly decomposed,		60

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-03
Page: 4 of 4

Drilling Start Date:	03/18/2016 10:15	Boring Depth (ft):	75	Well Depth (ft):	52
Drilling End Date:	03/19/2016 10:45	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.11	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,727.9 E 2,101,388.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									slightly disintegrated, slightly fractured, micaceous.		60
65				Run 5			24/ 120	50	(65.5') Round Knob Red-SHALE: moderately strong, dusky red (10R 3/4), thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.		65
70											70
75									End of borehole at 75 ft bgs. Well installed on 03/23/2016		75
80											80

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04
Page: 1 of 8

Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0				SPT-1		2 2 4 5	16/24	0.75	(0') Silty CLAY, dusky red (7.5R 3/2), damp, soft.		0
				SPT-2		5 9 19 19	16/24	0.75	(2') CLAY with sand, stiff, low plasticity, gray.		
				SPT-3		8 9 10 12	24/24	1.0	(3') SAND, brownish yellow (10YR 6/8), fine to medium grained, damp, soft.		
5				SPT-4		13 10 10 15	22/24	1.0	(6') Some clay lenses <1".		5
				SPT-5		9 9 12 8	20/24	0.75			
10				SPT-6		3 6 7 9	16/24	4.5	(11') CLAY, dark brown (7.5YR 3/4), dry, stiff, low plasticity.		10
				SPT-7		6 10 13 15	20/24	NA	(12') SAND lense, damp, low plasticity. (12.5') CLAY, gray (GLEY 1 6/N), dry, stiff, no plasticity.		
15				SPT-8		10 11 18 16	18/24	1.5	(14') Fly ASH, gray (GLEY 1 3/N), fine to medium grained, dry.		15
				SPT-9		22 19 19 20	20/24	1.25			
				SPT-10		12 18 15 15	18/24	0.75			
20											20

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG

Boring/Well No. 2016-04
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Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20				SPT-11		9 20 20 20	20/24	0.5			20
				SPT-12		20 12 7 5	18/24	2.5			
				SPT-13		8 10 12 13	14/24	>5	(23.5') Red CLAY with secondary yellow (2.5YR 4/3 and 2.5Y 6/8), dry, stiff, non-cohesive. [CLARKSBURGH RED BEDS]		
25				SPT-14		14 16 21 17	12/24	>5			25
				SPT-15		9 13 24 28	16/24	>5			
30				SPT-16		20 40 50/3	16/24	>5			30
				Run 1			72/96	43	(32') CLAYSTONE/MUDSHALE: red (10R 3/4). [CLARKSBURGH RED BEDS]	Begin coring at 32'.	
35									(34') SANDSTONE: calcareous near top (~2'), micaceous throughout, fine grained, olive gray (5Y 5/2), thickly bedded/cross-bedding, slightly to moderately decomposed, moderately disintegrated, intensely fractured. [MORGANTOWN]	Casing (6" PVC) set to 34'.	35
40											40

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04

Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40				Run 2			60/120	92	(40.5') Repeating bands of Red MUDSHALE (10R 3/4) and Sandy SHALE, dark greenish gray (5G 4/1), pyritic/micaceous, weak to moderately strong, medium bedded, highly to moderately decomposed, moderately disintegrated, slightly fractured.		40
45									(44') MUDSHALE/CLAYSHALE: red (10R 3/4), weak to moderately strong, thickly bedded, moderately to highly decomposed, slightly disintegrated, slightly fractured.		45
50				Run 3			60/120	68			50
55									(53.5') SANDSTONE: micaceous, pale olive (10Y 6/2), fine grained, cross-bedded, moderately strong to strong, slightly decomposed, slightly disintegrated, intensely fractured.		55
60											60

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04
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Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60				Run 4			60/ 120	58	(60') Sandy SHALE: very pyritic, bluish gray (5B 5/1), moderately strong to strong, fine grained, thickly bedded, some red mudshale lenses, slightly decomposed, slightly disintegrated, moderately to intensely fractured.		60
65											65
70				Run 5			48/ 120	46	(70') Round Knob Red SHALE: moderate red (5R 4/2), weak to moderately strong, fine grained, thickly bedded, highly decomposed, moderately to intensely disintegrated, intensely to very intensely fractured.		70
75											75
80											80

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04

Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80				Run 6			30/120	37	(80') As above.		80
85											85
90				Run 7			30/120	73	(90') Round Knob Red SHALE: moderate red (5R 4/2) with secondary (5Y 5/6), moderately strong to weak, thickly bedded, moderately to highly decomposed, moderately to intensely disintegrated, moderately fractured.		90
95											95
100											100

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04
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Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100				Run 8			78/120	59	(100') Round Knob Red SHALE: moderately strong, moderate red (5R 5/2), no secondary color, thickly bedded, moderately decomposed, moderately disintegrated, intensely fractured (100'-103').		100
105											105
110				Run 9			54/120	22	(110.5') SANDSTONE: calcareous, lightly micaceous. [COW RUN]		110
115									(112') SANDSTONE: lightly micaceous, moderately strong to strong, fine grained, cross-bedded, slightly decomposed, slightly disintegrated, intensely fractured at 113'. [COW RUN]		115
120											120

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04
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Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120				Run 10			114/ 120	91	(120') SANDSTONE: strong to very strong, bluish gray (5B 5/1), fine grained, fresh to slightly decomposed, slightly disintegrated, slightly fractured, micaceous, lightly calcareous. [COW RUN]		120
125											125
130				Run 11			108/ 120	61	(131') Sandy CLAYSHALE: moderately strong to strong, calcareous, bluish gray (5B 5/1), thickly bedded, slightly decomposed, slightly disintegrated, intensely fractured at ~132', moderate fractures throughout. [COW RUN]		130
135											135
140											140

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-04
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Drilling Start Date:	03/15/2016 08:30	Boring Depth (ft):	150	Well Depth (ft):	133
Drilling End Date:	03/17/2016 09:15	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	661.04	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 350,736.8 E 2,101,388.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
140				Run 12			120/ 120	91	(140') Sandy CLAYSHALE: micaceous, moderately strong to strong, bluish gray (5B 5/1), thickly bedded, slightly decomposed, slightly disintegrated, slightly fractured. [COW RUN]		140
									End of [COW RUN]		
145									(143') Layered CLAYSHALE/MUDSTONE: bluish gray (5B 5/1) and red (10R 3/4), moderately strong, medium bedded, slightly decomposed, slightly disintegrated, slightly fractured.		145
150									End of borehole at 150 ft bgs. Well installed on 03/28/2016		150
155											155

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-05
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Drilling Start Date:	03/08/2016 14:00	Boring Depth (ft):	60	Well Depth (ft):	54
Drilling End Date:	03/09/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	650.97	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,787.1 E 2,101,641.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									Blind drilled 0-20'. See log 2016-06 for lithology.		0
5											5
10											10
15											15
20										Set 20' of 8" PVC casing.	20

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-05
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Drilling Start Date:	03/08/2016 14:00	Boring Depth (ft):	60	Well Depth (ft):	54
Drilling End Date:	03/09/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	650.97	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,787.1 E 2,101,641.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20				Run 1			104/ 120	47	(20') CLAYSTONE/CLAYSHALE: moderately strong, dark reddish brown (10R 3/4), moderately decomposed, moderately disintegrated. [CLARKSBURGH RED BEDS]	Begin coring @ 16:00	20
									(20.1') SANDSTONE/Sandy SHALE: fine grained, cross-bedded, micaceous, light olive gray (5Y 5/2), strong, slightly decomposed, slightly disintegrated, moderately fractured. [MORGANTOWN]		
25									(26') CLAYSTONE/CLAYSHALE: moderately strong, calcareous nodules, moderate red (5R 4/6) and very dark red (5R 2/6), massive, slightly to moderately decomposed, moderately disintegrated, moderately to intensely fractured. [INTER-MORGANTOWN]		25
30				Run 2			7/ 120	0	(30') Changes to intensely disintegrated, very intensely fractured.		30
35											35
40											40

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-05
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Drilling Start Date:	03/08/2016 14:00	Boring Depth (ft):	60	Well Depth (ft):	54
Drilling End Date:	03/09/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	650.97	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,787.1 E 2,101,641.7	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40				Run 3			55/ 120	22			40
									(42.5') Silty SANDSTONE: strong to very strong, pale olive (10Y 6/2) and olive gray (5Y 3/2), micaceous, strongly cross-bedded, fine grained, fresh to slightly decomposed, competent to slightly disintegrated, moderately fractured. [MORGANTOWN]		
45											45
50				Run 4			75/ 120	30	(50') SANDSTONE: very strong, light bluish gray (5B 7/1), fine grained, micaceous, calcareous, fresh, competent, moderately to intensely fractured. [MORGANTOWN] End of [MORGANTOWN]		50
									(52.5') Sandy, silty SHALE: moderately strong to strong, dark greenish gray (5G 4/1), pyritic, slightly decomposed, intensely disintegrated, slightly fractured.		
55									(54') CLAYSTONE/CLAYSHALE: weak to moderately strong, very dark red (5R 2/6), moderately decomposed, intensely disintegrated, intensely fractured.	17:15 Stop drilling for day @ 55'; out of water. Continue drilling on 03/09/2016	55
									Well installed on 03/29/2016		
60									End of borehole at 60 ft bgs.	Finish coring @ 08:50 03/09/2016	60

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-06
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Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0				SS-1		2 3 3 2	12/24	1.5	(0') Lean CLAY (CL); soft, moist to wet, reddish brown, medium plasticity, trace fine to coarse sand, trace fine gravel.		0
				SS-2		3 6 6 6	10/24	3.5	(3') Changes to dry to moist, low plasticity, stiff.		
5				SS-3		4 3 5 7	12/24	3			5
				SS-4		6 7 9 6	14/24	2	(6') Changes to gray (10YR 6/1) with yellow (10YR 7/6) mottled.		
				SS-5		2 5 8 18	11/24	3.5			
10				SS-6		3 8 11 15	10/24	4	(10') Changes to weak red (10R 4/3).		10
				SS-7		31 28 29 28	16/24	>4	(12') Changes to hard, dry, dusky red (10R 3/3), trace to few fine to coarse sand, fine gravel, few to little silt.	12-16' possibly in Clarksburgh Red Beds.	
				SS-8		15 13 25 29	18/24	>4	(14') Changes to light reddish brown.		
15				SS-9		25 50 55	5/24	>4	(16') Changes to weak red (7.5R 4/3).	50 over 6" Split Spoon refusl @ 18'; will auger and log from cuttings.	15
									(19') LIMESTONE: light gray (N7), ervescent, (logged from cuttings).		
20											20

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-06
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Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS
20									(21') Interbedded, limestone and shale, likely weak to moderate.	
				Run 1					(23') Silty SANDSTONE: fine grained, strong, greenish gray (5GY 6/1), medium bedded, slightly decomposed, slightly disintegrated, moderately fractured, micaceous, cross-bedded. [MORGANTOWN]	Begin coring @ 23' on 03/7/2016 @ 10:45
25									(25') SHALE and SILTSTONE: strong, dusky red (5R 3/4) and dusky yellow green (5GY 5/2), fine grained, thinly interbedded, moderately decomposed, moderately disintegrated, moderately fractured. [MORGANTOWN]	
30				Run 2			49/120	20	(30') CLAYSTONE/CLAYSHALE: weak to moderately strong, pale reddish brown (10R 5/4), very dusky purple, massive, calcareous nodules throughout, moderately decomposed, slightly disintegrated, moderately fractured, occasional slickensides. [INTER-MORGANTOWN]	
									(32') Changes to highly decomposed, intensely disintegrated, intensely fractured.	
35										
40										

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-06
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Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40				Run 3			101/120	79	(41') Changes to slightly to moderately fractured. (41.5') 3" 45° fracture. (43.5') 45° slickenside.		40
45											45
50				Run 4			70/120	14	(50') Silty SANDSTONE: fine grained, moderately strong, cross-bedded, micaceous, light olive gray (5Y 6/1), massive, fresh, slightly disintegrated, intensely fractured. [MORGANTOWN] (52.5') Sandy, silty SHALE and Silty SANDSTONE: thinly bedded, pyritic, light olive gray (5Y 6/1), moderately strong, slightly decomposed, moderately to intensely disintegrated (shale), intensely fractured. (53.5') Changes to calcareous sandy, silty SHALE, pyritic. (56') CLAYSTONE: moderately strong to strong, very dusky purple (5RP 2/2) and light olive green (5Y 5/6), calcareous limestone nodules throughout, many slickenside throughout, slightly to moderately fractured, moderately decomposed, moderately disintegrated.		50
55											55
60											60

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-06

Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60				Run 5			61/120	32			60
65											65
70				Run 6			40/120	12	(71') Changes to intensely disintegrated, intensely fractured.		70
75											75
80											80

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-06
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Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80				Run 7			66/ 120	37			80
									(83') CLAYSTONE/CLAYSHALE: strong, dusky red (5R 3/4), massive, slightly decomposed, slightly disintegrated, moderately fractured. [ROUND KNOB RED SHALE]		
85											85
90				Run 8			30/ 120	14			90
95									(98') Changes to moderately to highly decomposed, intensely disintegrated, intensely fractured.		95
100											100

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Client: AEP-Gavin
Project: CHE8259A
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BORING LOG
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Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100				Run 9			100/120	49			100
									(103') Sandy SHALE: strong to very strong, dark greenish gray (5G 4/1), fine grained, massive, trace calcareous nodules, slightly decomposed, slightly to moderately disintegrated, slightly to moderately fractured. [COW RUN]		
105											105
110				Run 10			105/120	22			110
									(112') Silty SANDSTONE: fine grained, very strong, medium light gray (N6), cross-bedded, fresh, competent, intensely fractured. [COW RUN]		
115									(115') Sandy SHALE: strong to very strong, dark greenish gray (5G 4/1), fine grained, massive, trace calcareous nodules, slightly decomposed, slightly disintegrated, slightly to moderately fractured. [COW RUN]		115
120											120

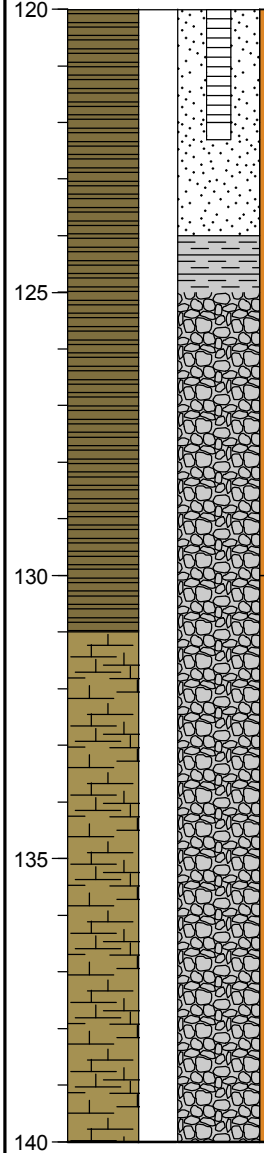
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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-06
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Drilling Start Date:	03/06/2016 14:20	Boring Depth (ft):	140	Well Depth (ft):	122
Drilling End Date:	03/08/2016 08:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:		Top of Casing Elev. (ft):	651.10	Seal Material(s):	Bentonite Chips
Logged By:	M. Muenich	Location (X,Y):	N 351,789.1 E 2,101,632.9	Filter Pack:	Sidley #5 & #7 (Choker Sand)



DEPTH (ft)	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120	Run 11			110/ 120	38			120
125							Stop drilling for day.	125
130	Run 12			49/ 120	14		Continue drilling on 03/08/2016 @ 08:50	130
						(131') CLAYSTONE/SHALE: weak to moderately strong, dark reddish brown (10R 3/4) and light olive brown (5Y 5/6), massive, highly decomposed, intensely disintegrated, moderately to intensely fractured.		
135								135
						Well installed on 03/29/2016		
140						End of borehole at 140 ft bgs.	Finish coring on 03/08/2016 @ 09:50	140

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Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-07
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Drilling Start Date:	03/18/2016 11:00	Boring Depth (ft):	131	Well Depth (ft):	103
Drilling End Date:	03/18/2016 17:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.45	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 352,403.8 E 2,100,399.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									Overburden. No samples. See 2016-08.		0
5											5
10											10
15											15
20											20

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

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Drilling Start Date:	**03/18/2016 11:00**	Boring Depth (ft):	**131**	Well Depth (ft):	**103**
Drilling End Date:	**03/18/2016 17:40**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.45**	Seal Material(s):	**Bentonite Chips**
Logged By:	**C. Christensen**	Location (X,Y):	**N 352,403.8 E 2,100,399.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20									Overburden. No samples. See 2016-08.		20
25											25
30											30
35											35
40											40

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-07
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Drilling Start Date:	03/18/2016 11:00	Boring Depth (ft):	131	Well Depth (ft):	103
Drilling End Date:	03/18/2016 17:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.45	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 352,403.8 E 2,100,399.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40									Overburden. No samples. See 2016-08.		40
45											45
50											50
55											55
60											60

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-07
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Drilling Start Date:	**03/18/2016 11:00**	Boring Depth (ft):	**131**	Well Depth (ft):	**103**
Drilling End Date:	**03/18/2016 17:40**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.45**	Seal Material(s):	**Bentonite Chips**
Logged By:	**C. Christensen**	Location (X,Y):	**N 352,403.8 E 2,100,399.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									Overburden. No samples. See 2016-08.		60
65											65
70											70
75											75
80											80

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Drilling Start Date:	03/18/2016 11:00	Boring Depth (ft):	131	Well Depth (ft):	103
Drilling End Date:	03/18/2016 17:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.45	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 352,403.8 E 2,100,399.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80									Overburden. No samples. See 2016-08.		80
85				Run 1			42/60	21	(85') CLAYSTONE: red (10R 3/4), weak, thickly bedded, highly to moderately decomposed, moderately disintegrated, intensely fractured. [CLARKSBURGH RED BEDS]		85
90				Run 2			84/ 120	78	(91.5') Sandy SHALE: lightly micaceous, calcareous between 91.5-95, strong to moderately strong, fine grained, thickly bedded, slightly decomoposed, slightly disintegrated. [MORGANTOWN]		90
95									(96') MUDSTONE/CLAYSHALE: red (10R 3/4), weak.		95
100									(97') SANDSTONE: moderately strong to strong, fine grained, cross-bedded, moderately decomposed, slightly disintegrated, moderately fractured, very pyritic, calcareous. [MORGANTOWN]		100

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BORING LOG

Boring/Well No. 2016-07
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Drilling Start Date:	03/18/2016 11:00	Boring Depth (ft):	131	Well Depth (ft):	103
Drilling End Date:	03/18/2016 17:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.45	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 352,403.8 E 2,100,399.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100				Run 3			96/ 120	27	(101.5-102.5') Highly fractured.		100
									(104') Intensely fractured.		
105									(105') CLAYSHALE/MUDSTONE: very weak, red (10R 3/4), thickly bedded, highly decomposed, intensely disintegrated, very intensely fractured.		105
110				Run 4			90/ 120		(111') Red MUDSHALE with blue Sandy SHALE: red (10R 3/4) and blue (5B 5/1), calcareous, thickly bedded, moderately strong to strong, moderately decomposed, slightly disintegrated, slightly fractured.		110
115											115
120											120

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BORING LOG

Boring/Well No. 2016-07
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Drilling Start Date:	**03/18/2016 11:00**	Boring Depth (ft):	**131**	Well Depth (ft):	**103**
Drilling End Date:	**03/18/2016 17:40**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.45**	Seal Material(s):	**Bentonite Chips**
Logged By:	**C. Christensen**	Location (X,Y):	**N 352,403.8 E 2,100,399.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120				Run 5			120/ 120	69	(121') Layered red MUDSHALE with blue Sandy SHALE: red (10R 3/4) and blue (5B 5/1), moderately strong, thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.		120
125									(127') SANDSTONE: strong, very pyritic, blue (5B 5/1), cross-bedded, slightly decomposed, slightly disintegrated, moderately to intensely fractured, calcareous.		125
130									End of borehole at 131 ft bgs. Well installed on 03/29/2016		130
135											135

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-08
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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0				SC			48/60		(0') Sandy CLAY (CL); medium plasticity, brown (5YR 4/4), some dark brown and yellowish mottling, dry, ppen 2.0.		0
5				SC			54/60		(8') Clayey SILT (ML); very dense, some very thin uneven bedding, dense clay inclusions.		5
10				SC			90/120		(10') As above: brown (5YR 4/2) to yellowish red (5YR 5/6).		10
15											15
20											20

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG

Boring/Well No. 2016-08
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Drilling Start Date:	**03/14/2016 13:00**	Boring Depth (ft):	**221**	Well Depth (ft):	**192**
Drilling End Date:	**03/16/2016 16:00**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.39**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Chad Gregory**	Location (X,Y):	**N 352,403.8 E 2,100,409.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20				SC			110/120		(20') Sandy CLAY (CL); brown (5YR 4/3), hard.	20-30' wet from drill fluids.	20
25									(26') SAND (SP); fine grained, dark brown (5YR 2.5/2), loose. [BOTTOM ASH]		25
									(26.5') SILT (ML); very dense, tan to gray to yellowish brown, some very thin bedding.		
30				SC			105/120		(30') Silty, sandy CLAY (CL); brown (7.5YR 4/2), very stiff to hard, medium to high plasticity.	30-40' wet from drill fluids.	30
35											35
40									(39.5') CLAYSTONE cobbles: moderately strong,		40

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40				Run 1			6/12	0	reddish brown.		40
				Run 2			103/ 120	88	(40') CLAYSTONE: very weak, light gray to moderate red (5R 4/6), intensely fractured, highly decomposed. (41') Changing to dusky red (5R 3/4) to medium gray (N5), weak, slightly fractured, moderately decomposed.		
45											45
50				Run 3			84/ 120	85			50
									(53') Changing to slightly sandy.		
55											55
60											60

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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									(60') Changing to grayish black (N2) with few thin beds, light gray to yellowish brown to red.		60
				Run 4			28/ 120	32	(61') LIMESTONE: dusky blue/green (5BG 3/2) to light olive brown (5Y 5/6), weak, highly decomposed, slickensides, clayey.		
65											65
70				Run 5			40/ 120	50	(71') CLAYSTONE: dusky blue/green (5BG 3/2) to dark greenish yellow (10Y 6/6), weak, moderately decomposed, moderately disintegrated, few moderately brown clay nodules.		70
75											75
80											80

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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80				Run 6			58/120	52	(81.5') Slickensided fracture. (82.5') Changing to moderate red (5R 4/6), some dusky blue/green (5BG 3/2) to greenish yellow (10Y 6/6) veins, intensely fractured, few slickensides. [LOWER CLARKSBURGH RED BEDS]		80
85											85
90									(89') Changing to slightly calcareous.		90
				Run 7			117/120	98	(91') Silty SANDSTONE: fine grained, strong, slightly decomposed, slightly fractured, light to dark gray. [MORGANTOWN]		
95									(95.5') CLAYSHALE: dark red (5R 2/6), strong. (96.5') SANDSTONE: light gray (N7), strong, slightly fractured, fine grained.		95
100									(98.5') CLAYSHALE: medium to dark gray (N5 to N3), moderately strong, sandy.		100

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Drilling Start Date:	**03/14/2016 13:00**	Boring Depth (ft):	**221**	Well Depth (ft):	**192**
Drilling End Date:	**03/16/2016 16:00**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.39**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Chad Gregory**	Location (X,Y):	**N 352,403.8 E 2,100,409.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100				Run 8			69/ 120	57	(100') SANDSTONE: fine grained, micaceous, thinly bedded, cross bedded, strong, light to medium gray, slightly fractured, slightly decomposed, very micaceous 102-104'.		100
									(104') Sandy CLAYSHALE: weak, medium gray to dark reddish brown, highly decomposed, highly disintegrated.		
105									(105') CLAYSTONE: weak, medium gray, limestone nodules, highly fractured, moderately decomposed, moderately disintegrated, changing to dark reddish brown (10R 3/4) at 106'.		105
110				Run 9			112/ 120	87	(111') Silty SANDSTONE: gray, strong, fine grained.		110
									(112') As above: less silty.		
									End of [MORGANTOWN]		
									(113') CLAYSHALE: moderately strong, medium gray, limestone nodules, changing at 114.5' to dark reddish brown, strong, calcareous, slightly fractured.		
115									(118') Slickensided fracture.		115
									(119-120') Medium dark gray.		
120											120

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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120				Run 10			120/ 120	78	(121') Changing to strong, very dark red (5R 2/6), moderately fractured.		120
									(123.5') LIMESTONE: dark greenish gray (5G 4/1) to dark reddish brown, moderately decomposed, moderately disintegrated, sandy.		
125									(124.5') Sandy CLAYSHALE: pyritic, dark greenish gray to light gray, calcareous, moderately fractured.		125
									(129') Changing to dark reddish brown (10R 3/4), not pyritic, less calcareous.		
130				Run 11			69/84	83			130
									(132') LIMESTONE: medium reddish brown, dark greenish yellow nodules (10Y 6/6), few white veins, many slickensides, clayey.		
135									(136') More frequent dusky blue green mottling (5BG 3/2).		135
				Run 12			0/36		(138') No Recovery.		
140											140

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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
140										Sonic crew cleared out borehole @ 141'	140
				Run 13			82/ 120	73	(141') CLAYSTONE: calcareous, dark greenish yellow/light blue green/dusky blue green mottled, moderately fractured, many slickensides, strong.		
145											145
									(149') No Recovery.		
150				Run 14			80/ 120	43	(151') LIMESTONE: greenish gray (5G 6/1), strong, massive, moderately decomposed, moderately disintegrated, intensely fractured.		150
									(151.5') CLAYSTONE: calcareous, dusky blue green to dark greenish yellow, weak, intensely fractured, slickensided (152-153'), moderately decomposed, moderately disintegrated.		
155											155
160											160

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Drilling Start Date:	**03/14/2016 13:00**	Boring Depth (ft):	**221**	Well Depth (ft):	**192**
Drilling End Date:	**03/16/2016 16:00**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.39**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Chad Gregory**	Location (X,Y):	**N 352,403.8 E 2,100,409.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
160				Run 15			60/60	57	(161') Changing to moderately strong, dark reddish brown.		160
165				Run 16			60/60	50	(167') Changing to very weak, intensely fractured, dusky blue green to dark greenish yellow.		165
170				Run 17			75/ 120	92	(171') Changing to moderately strong, dusky blue green to dark reddish brown, slickensided, highly fractured, white calcareous nodules.		170
175									(174') CLAYSHALE: strong, dark reddish brown to dusky blue green, white calcareous veins. (176.5') Slickensided fracture. (177-178') Few thin sandstone beds.		175
180											180

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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
180				Run 18			117/ 120	74	(181.5') SANDSTONE: medium dark gray (N4), thinly bedded, cross-bedded, strong, fine grained. [COW RUN]		180
									(182') Sandy SHALE: medium dark gray to grayish black, moderately fractured, weak to moderately strong, occasional interbedded sandstone.		
185											185
190				Run 19			116/ 120	78	(191') Changing to pyritic.		190
									(194-195') Intensely fractured (shale).		
195									(196-197') Very weak.		195
200											200

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Drilling Start Date:	03/14/2016 13:00	Boring Depth (ft):	221	Well Depth (ft):	192
Drilling End Date:	03/16/2016 16:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	731.39	Seal Material(s):	Bentonite Chips
Logged By:	Chad Gregory	Location (X,Y):	N 352,403.8 E 2,100,409.0	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
200				Run 20			102/ 120	75	(202') Changing to weak, intensely fractured, wet.		200
									(204') Changing to medium reddish brown and medium gray layers, less sandy, more clayey.		
205									End of [COW RUN]		205
									(208') CLAYSTONE: dark reddish brown to grayish purple (5P 4/2), calcareous, moderately strong, no pirite.		
									(209') MUDSTONE: medium gray (N5), very weak, very soft.		
210				Run 21			80/ 120	66	(210') CLAYSTONE: moderately reddish brown, calcareous, moderately strong.		210
									(213') Changing to claystone with many small limestone nodules, very calcareous, weak.		
215											215
220											220

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Drilling Start Date:	**03/14/2016 13:00**	Boring Depth (ft):	**221**	Well Depth (ft):	**192**
Drilling End Date:	**03/16/2016 16:00**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**731.39**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Chad Gregory**	Location (X,Y):	**N 352,403.8 E 2,100,409.0**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
220											220
									End of borehole at 221 ft bgs. Well installed on 03/23/2016		
225											225

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0				SS		3 6	18/24		(0') TOPSOIL, light brown (10YR 4) with organic.		0
						8 8			(1') Sandy SILT, medium firm, some sand lenses <1", dry, 7.5YR 6.		
				SS		13 9	24/24				
						9 10			(3') Silty/sandy CLAY, dry, stiff, yellowish brown (10YR 5/6).		
5				SS		4 6	21/24				5
						7 9					
				SS		12 12	24/24				
						13 12					
				SS		3 7	24/24				
						8 10					
10				SS		2 6	24/24		(10') Silty/sandy CLAY, grayish/yellow (10YR 6/3), dry, stiff.		10
						9 10					
15											15
20									(19') CLAYSTONE: red/gray (10R 4/6), very decomposed, unable to core.		20

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20											20
25									(25') Sandy SILTSTONE: light brown/yellow, very decomposed, unable to core.		25
									(27') CLAYSTONE with silt: red, less decomposed.		
30				Run 1			30/96	37	(32') SANDSTONE: fine grained, dry, light gray (N7), slightly decomposed, competent, moderately fractured.		30
35									(32.5') CLAYSTONE with silt: brown (5YR 4/4), moderately strong, limestone nodules near top, intensely fractured, competent.		35
40											40

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40				Run 2			74/120	53	(40') CLAYSTONE with silt: greenish black (5GY 2/1), moderately strong, thickly bedded, slightly decomposed, intensely fractured.		40
									(43') LIMESTONE: gray (N5), strong, microcrystalline, thickly bedded, moderately decomposed, competent, moderately fractured.		
45											45
50				Run 3			5/120	100	Limestone grades into red beds at ~50.5'.		50
									(50.5') MUDSTONE/CLAYSTONE: reddish brown (5YR 3/2), highly decomposed, intensely fractured. [CLARKSBURGH RED BEDS]		
55											55
60											60

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-09
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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60				Run 4			19/ 120	37	(60') MUDSTONE: reddish brown (5YR 3/2), lightly decomposed, intensely fractured. [CLARKSBURGH RED BEDS]		60
65											65
70				Run 5			92/ 120	73	(72.5') SANDSTONE: micaceous/pyritic, fine grained, medium light gray, thickly bedded, fresh, slightly fractured. [MORGANTOWN]		70
75											75
80											80

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-09

Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80				Run 6			103/ 120	67			80
									(81') Clayey MUDSTONE: reddish brown (5YR 3/2), weak, thickly bedded, highly decomposed, intensely fractured.		
									(83.5') Silty SANDSTONE: micaceous, greenish gray (5G 6/1), cross-bedding at 85.5', thickly bedded, slightly decomposed, moderately disintegrated.		
85											85
90				Run 7			76/ 120	58	(90') Silty/sandy SHALE: greenish gray (5G 6/1), moderately strong, fissile, moderately decomposed, intensely fractured.		90
									(92.5') MUDSTONE: dusky red (5R 2/2), weak to moderately strong, thickly bedded, highly decomposed, calcite veins, moderately disintegrated, moderately fractured.		
95											95
100											100

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Client: AEP-Gavin
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BORING LOG
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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100				Run 8			58/120	16	(110') Repeating sequence of Silty MUDSTONE to SANDSTONE: micaceous, fine grained, 100-105' strong to moderately strong, slightly decomposed, slightly disintegrated, intensely fractured.		100
105											105
110				Run 9			100/120	89	(110') Shaly SILTSTONE: micaceous, moderately strong, thickly bedded, moderately decomposed, slightly disintegrated, slightly fractured.		110
115											115
120									(118.5') SILTSTONE: gray (N4), moderately strong, thickly bedded, moderately decomposed, slightly disintegrated, intensely fractured.		120

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120				Run 10			41/ 120	22			120
125											125
130				Run 11			70/ 120	61	(130') MUDSTONE: red (5RP 2/2), moderately strong, thickly bedded.		130
135									(133') Silty CLAYSTONE: greenish gray, thickly bedded, moderately decomposed, slightly disintegrated, moderately to intensely fractured.		135
140											140

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
140				Run 12			96/ 120	63	(140') MUDSTONE/CLAYSTONE: red (5R 3/4) - matrix and olive (5Y 5/6) - secondary, moderately strong to strong.		140
145									(144') CLAYSHALE: greenish gray (5G 4/1), weak, moderately fissile, thickly bedded, moderately to highly decomposed, slightly disintegrated, slightly fractured.		145
150				Run 13			100/ 120	52	(151') Silty MUDSTONE: greenish gray (5G 4/1), with limestone nodules, thickly bedded, highly to moderately decomposed, moderately disintegrated, moderately fractured.		150
155									(158.5') Silty MUDSTONE: greenish gray (5G 4/1), thickly bedded, moderately decomposed, moderately disintegrated, moderately fractured,		155
160											160

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
160				Run 14			54/ 120	28	limestone nodules.		160
165											165
170				Run 15			48/ 120	92	(170') SILTSTONE: greenish gray (5G 4/1), not calcareous, thickly bedded, fresh to slightly decomposed, slightly fractured. (171.5') Silty SANDSTONE: greenish gray (5G 4/1), fresh to slightly decomposed, moderately fractured, lightly micaceous.		170
175											175
180											180

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Drilling Start Date:	02/09/2016 12:45	Boring Depth (ft):	200	Well Depth (ft):	187
Drilling End Date:	02/12/2016 14:00	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	739.22	Seal Material(s):	Bentonite Chips
Logged By:	CC & CG	Location (X,Y):	N 353,180.4 E 2,095,686.6	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
180				Run 16			102/120	29	(180') SANDSTONE: micaceous, fine grained, greenish gray (5G 4/1), thickly bedded, fresh to slightly decomposed, moderately disintegrated, moderately fractured, limestone nodules 180-183', cross-bedding 186-188.5'.		180
185											185
190				Run 17			114/120	62	(190') SANDSTONE: fine grained, micaceous, some beddings/bending, fresh to slightly decomposed, moderately disintegrated, moderately fractured.		190
195									(194.5') SANDSTONE: medium grained, light gray (N6), fresh to slightly decomposed, moderately disintegrated, moderately fractured.		195
200									(196.5') SILTSTONE: with limestone nodules, greenish gray (5G 4/1), slightly decomposed, moderately disintegrated, moderately fractured. Well installed on 03/03/2016 End of borehole at 200 ft bgs.		200

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,060.5 E 2,096,240.3	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0				RS-0-5			60/60		(0') Lean CLAY (CL); reddish brown (2.5YR 3/3), moist, low plasticity, trace fine gravel, little silt.		0
									(2.5') Clayey SILT (ML); reddish brown (10YR 7/4) with redox features, platy structure, friable, trace to few fine sand, dry, loose.		
5				RS-5-10			60/60		(5') Changes to yellowish brown (2.5Y 6/3).		5
									(6.5-7.5') Changes to reddish brown (2.5YR 4/4).		
									(7.5') Changes to light yellowish brown (2.5Y 6/4).		
10				RS-10-15			52/60		Trace cobbles from 5-10 ft.		10
									(10') Changes to yellowish brown (10YR 5/4), few fine to coarse gravel, trace cobbles, from 10-14' ft.		
15				RS-15-20			60/60		(14-14.5') SILT (ML); dense, trace to few red cobbles, light brownish gray (10YR 6/2) with some brownish yellow mottling (10YR 6/5), dry, platy, friable, trace fine sand.		15
20											20

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 2016-10

Drilling Start Date:	**02/09/2016 15:50**	Boring Depth (ft):	**330**	Well Depth (ft):	**304.6**
Drilling End Date:	**02/17/2016 15:25**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.98**	Seal Material(s):	**Bentonite Chips**
Logged By:	**D. Mateas & M. Muenich**	Location (X,Y):	**N 351,068.1 E 2,096,227.1**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20				RS-20-30			120/120		(20') SILT (ML); reddish brown (2.5YR 4/4), dry, friable, medium stiff, trace fine sand, weak platy structure.		20
									(22.5') Changes to light yellowish brown (10YR 6/4).		
25									(24.5') Changes to light reddish brown (2.5YR 7/3).		25
									(27.5') Changes to reddish brown (2.5YR 5/4).		
									(28.5') Changes to light gray (2.5Y 7/2) with few to little brownish yellow (10YR 6/3) mottled, very hard, dry, trace dark reddish brown (10YR 3/3) clay film.		
30				RS-30-39			103/103		(30') Changes to light gray (5Y 7/2), hard, weak, platy structure.		30
35									(37') Silty SHALE: strong, light gray (N7), planar (massive), slightly to moderately decomposed, competent.	Sampled with sonic core barrel, not boxed.	35
40											40

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40				Run 1			10/30	22	(40') Sandy, silty SHALE: medium light gray (N6), strong, white (N9) laminations throughout, fresh to slightly decomposed, slightly disintegrated, moderately fractured, calcite veins at 41'.	02/11/2016 begin coring @ 09:45	40
				Run 2			118/ 120	62	(42.5') SANDSTONE: fine grained, strong, medium gray (N5) with medium dark gray (N4) laminations, micaceous, cross-bedded, slightly decomposed, slightly disintegrated, moderately fractured.		
45									(46-46.5') Moderately disintegrated.		45
									(47-48.5') Changes to moderate yellowish brown (10YR 5/4).		
									(48.5') Changes to medium gray (N5) with medium dark gray (N4) laminations, fresh, competent, unfractured.		
50									(51') Slightly decomposed, slightly disintegrated, moderately fractured.		50
				Run 3			119.5/ 120	73			
55									(58.4') Two converging fractures: 110° (extremely narrow) and 225° (narrow).		55
60									(58.5') Changes to dark yellowish orange (10YR		60

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									6/6) with moderate brown (5YR 4/4) laminations.		60
									(59.6-60.6') Medium gray (N5) with moderate dark gray (N4) laminations.		
									(60.6') Dark yellowish orange (10YR 6/6) with moderate brown (5YR 4/4) laminations.		
				Run 4			114.5/ 120	70	(62.5') Changes to intensely fractured.		
									(63.2') SANDSTONE: micaceous, medium grained, strong, very light gray (N8), massive, fresh, competent, slightly fractured.		
65											65
									(68.3-69') Moderately wide fracture 80°, changes to coarse grained, weak, highly decomposed, iron oxide staining.		
									(69') Changes to medium grained, light gray (N7) with reddish orange staining, strong, slightly decomposed, competent.		
70											70
				Run 5			115.5/ 120	81			
									(74.5') Silty SANDSTONE: micaceous, strong, very light gray (N8) with medium dark gray (N4) laminations, cross-bedding, fine grained, slightly decomposed, slightly disintegrated, slightly fractured.		
75											75
									(75-77.5') Dark yellowish orange (10YR 6/6) with moderate brown (5YR 4/4) cross bedding.		
									(77.5') Changes back to gray found at 74.3'.		
									(78.8-79') Mud inclusions, otherwise same as above.		
80											80

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80											80
				Run 6			115.5/ 120	83	(81.8-82.5') Moderately narrow fracture at 80°.		
85											85
									(86.4') SANDSTONE: fine grained, micaceous, very strong, medium gray (N5), massive, fresh, competent, unfractured.		
90											90
				Run 7			117/ 120	89			
95											95
									(97.5-98.3') Dark yellowish orange (10YR 6/6).		
100											100

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100											100
				Run 8			98/ 120	27	(101.4') CLAYSTONE: very weak, dark gray (N3), massive, highly decomposed, very intensely fractured.		
									(102.5') Silty SHALE: weak, grayish black (N2), fissile, moderately to highly decomposed, slightly disintegrated, intensely fractured, slightly micaceous.		
105									(105') SANDSTONE: with interbedded silty shale, medium light gray (N6) and grayish black (N2), micaceous, moderately strong, laminations of shale, slightly to moderately decomposed, slightly disintegrated, intensely fractured.		105
									(108.9') Sandy SHALE: micaceous, moderately strong, medium dark gray (N4), slightly to moderately decomposed, moderately disintegrated, moderately to intensely fractured, fissile.		
110				Run 9			50/ 120	19	(112') Shaly SANDSTONE: micaceous, moderately strong, medium light gray (N6) and grayish black (N2), moderately to highly decomposed, moderately disintegrated, intensely fractured.		110
									(114.2') Sandy SHALE: micaceous, moderately strong, medium dark gray (N4), slightly to moderately decomposed, moderately disintegrated, moderately to intensely fractured.		
115									(116') COAL: moderately strong, black (N1), orange reddish staining, highly decomposed, very intensely fractured.		115
120											120

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120				Run 10			120/ 120	35	(123') Silty SANDSTONE: micaceous, light gray (N7) with medium dark gray (N4) cross bedding and laminations, mud inclusions, strong, fine grained, slightly decomposed, slightly to moderately disintegrated, slightly to moderately fractured, mud infillings in fractures.		120
125									(128') Sandy CLAYSHALE: micaceous, strong, medium dark gray (N4), fine grained, fissile, slightly decomposed, moderately to intensely disintegrated, intensely fractured, coal inclusions.		125
130				Run 11			91/ 120	42	(130.9') Grades to claystone, highly decomposed, intensely disintegrated, very intensely fractured. (132-132.5') Grades to slightly decomposed, slightly disintegrated. (133') CLAYSHALE: moderately strong, grayish black (N2), fissile, slightly pyritic, slightly decomposed, intensely disintegrated, very intensely fractured.		130
135									(136') Clayey LIMESTONE: strong, medium gray (N5), massive, slightly decomposed, slightly disintegrated, unfractured.		135
140											140

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
140									(140') No Recovery.		140
				Run 12			47/ 120	10	(142.5') CLAYSTONE: strong, slightly calcareous, dark greenish gray (5G 4/1), micaceous, massive, moderately decomposed, moderately disintegrated, very intensely fractured. (145') Changes to moderately strong to weak, grayish red (10R 4/2) and dark reddish brown (10R 3/4), not calcareous, highly decomposed, highly disintegrated, intensely to very intensely fractured.		
145											145
150				Run 13			80/ 120	51	(152.5') Grades to sandy silty claystone, grayish olive (10Y 4/2), not micaceous, chert nodules, moderately decomposed, moderately disintegrated, intensely fractured, clay infillings in fractures, slickensides.		150
155											155
160									(157.5') SILTSTONE to silty SANDSTONE: moderately strong, micaceous, medium dark gray (N4) with reddish orange staining, massive, slightly decomposed, slightly to moderately disintegrated, moderately fractured, fine grained, slickensides.		160

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Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
160											160
				Run 14			92/ 120	32	(162') Silty SANDSTONE: moderately strong to strong, micaceous, medium gray (N3), cross-bedded laminations, slightly decomposed, slightly disintegrated to competent, moderately fractured, fine grained. (163.7-166.5') Changes to medium dark gray (N4), laminations, no cross beddings, moderately decomposed, intensely disintegrated, intensely fractured.		
165											165
									(166.5') CLAYSTONE: weak, dark reddish brown (10R 3/4) and grayish red (10R 4/2), massive to slightly fissile, moderately to highly decomposed, moderately disintegrated, intensely fractured.		
170											170
				Run 15			90/90	51	(170.6') SANDSTONE: moderately strong to weak, medium dark gray (N4), fine grained, micaceous, mostly massive, minor cross bedding, fresh to slightly decomposed, slightly disintegrated, slightly fractured. (174.3') Grades to Shaly SANDSTONE, moderately decomposed, moderately disintegrated, intensely fractured.		
175									(175.7') CLAYSHALE: strong, moderate brown (5YR 3/4), fissile, slightly decomposed, intensely disintegrated, intensely fractured.		175
									(176.8') Shaly SANDSTONE: strong, medium dark gray (N4) and grayish black (N2), fissile, fine grained, slightly decomposed, slightly disintegrated, intensely fractured, slightly micaceous. (178.5') Changes to SANDSTONE: not fissile,		
180											180

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Drilling Start Date:	02/09/2016 15:50	Boring Depth (ft):	330	Well Depth (ft):	304.6
Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
180									fresh and competent, slightly fractured.		180
				Run 16			49/60	53			
									(183') CLAYSHALE: strong, dusky brown (5YR 2/2), fissile, slightly decomposed, intensely disintegrated, intensely fractured.		
185											185
				Run 17			60/60	27	(187.5') CLAYSTONE: moderately strong to weak, dark reddish brown (10R 3/4), light olive brown (5Y 5/6), dusky yellow (5Y 6/4) and very dusky purple (5RP 2/2), highly decomposed, highly disintegrated, intensely to very intensely fractured, fractures at 45° and 135° angles, slickensides present. [CLARKSBURGH RED BEDS]		
190											190
				Run 18			32/60	7			
195											195
200											200

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Drilling End Date:	**02/17/2016 15:25**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.98**	Seal Material(s):	**Bentonite Chips**
Logged By:	**D. Mateas & M. Muenich**	Location (X,Y):	**N 351,068.1 E 2,096,227.1**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
200											200
				Run 19			35/ 120	0			
205											205
210											210
				Run 20			77/ 120	10	(212') Very dusky purple (5RP 2/2) and dusky yellow (5Y 6/4) grade out, grades to moderately decomposed, intensely fractured.		
215											215
220											220

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Drilling End Date:	**02/17/2016 15:25**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.98**	Seal Material(s):	**Bentonite Chips**
Logged By:	**D. Mateas & M. Muenich**	Location (X,Y):	**N 351,068.1 E 2,096,227.1**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS
220										Reamed hole with 6" sonic casing and set 6" PVC casing to 228 ft.
				Run 21			32.5/ 60	50	(221.5') Silty SANDSTONE: strong, medium bluish gray (5B 5/1), fine grained, massive, micaceous, fresh, competent, slightly fractured, calcareous nodules. [MORGANTOWN FRM]	
225									(225.5') CLAYSHALE: moderately strong, medium gray (N5), fissile, fresh to slightly decomposed, moderately disintegrated, intensely fractured, very micaceous, clay infillings in fractures, calcareous nodules. [MORGANTOWN FRM]	
				Run 22			22/24	0		
230				Run 23			88/ 120	38	(230') Shaly SANDSTONE: moderately strong, medium gray (N5), fissile, cross bedding, fresh, slightly disintegrated, moderately to intensely fractured, very micaceous. [MORGANTOWN FRM]	
235									(234.2') CLAYSHALE: weak, medium gray (N5) and dark greenish gray (5G 4/1), fissile, slightly decomposed, highly disintegrated, moderately to intensely fractured, pyritic, micaceous, 2" lenses of limestone at 234.1 and 235 ft. [MORGANTOWN FRM]	
									(236.5') CLAYSTONE: moderately strong to strong, dark reddish brown (10R 3/4), light olive brown (5Y 5/6) and very dusky purple (5RP 2/2), massive, moderately decomposed, slightly disintegrated, slightly to moderately fractured, calcareous nodules, slickensides. [MORGANTOWN FRM]	
240										

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Drilling End Date:	**02/17/2016 15:25**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.98**	Seal Material(s):	**Bentonite Chips**
Logged By:	**D. Mateas & M. Muenich**	Location (X,Y):	**N 351,068.1 E 2,096,227.1**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
240				Run 24			80/ 120	53			240
									(241.2') Sandy SILTSTONE: strong, dark greenish gray (5G 4/1) [silt] and light gray (N7) [sand], massive, mainly fissile, slightly decomposed, slightly disintegrated, slightly fractured, clay infillings in fractures, fine grained (sandy parts). [MORGANTOWN FRM]		
245											245
250				Run 25			115/ 120	79			250
									(252') SANDSTONE: strong, light gray (N7), fine grained, slightly micaceous, massive, fresh, competent, unfractured to slightly fractured. [MORGANTOWN FRM]		
255											255
									(256.3') Sandy silty SHALE: moderately strong, greenish gray (5G 6/1) and medium dark gray (N4), fissile, sand content grades out at 258 ft, slightly to highly decomposed, moderately disintegrated, pyritic, moderately fractured, clay infillings in fractures.		
260											260

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Drilling End Date:	**02/17/2016 15:25**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.98**	Seal Material(s):	**Bentonite Chips**
Logged By:	**D. Mateas & M. Muenich**	Location (X,Y):	**N 351,068.1 E 2,096,227.1**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
260				Run 26			120/ 120	70	(262') Slickensides appear through rest of unit.		260
									(264') Grades to CLAYSTONE, slightly decomposed, slightly disintegrated, slightly fractured, with limestone nodules and lenses.		
265									(264.7') Pyrite grades out.		265
									(266.2') Changes to very dusky purple (5RP 2/2) with some light olive brown (5Y 5/6).		
									(267.2') Changes to dark greenish gray (5G 4/1).		
									(268') Changes to light olive brown (5Y 5/6) with some very dusky purple (5RP 2/2).		
									(269') Changes to highly decomposed, intensely fractured.		
270				Run 27			101.5/ 120	63	(271') Changes to slightly decomposed, slightly fractured.		270
									(272.6') Changes to dark greenish gray (5G 4/1) with light olive brown (5Y 5/6) secondary staining.		
275									(275.5-277.9') Changes to very dusky purple (5RP 2/2) and light olive brown (5Y 5/6).		275
									(277.9') Grades to limestone nodules and lenses, strong to very strong.		
280											280

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Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
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Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
280				Run 28			64/ 120	17	(282') Changes to very dusky purple (5RP 2/2) and light olive brown (5Y 5/6).		280
285									(285') Clayey LIMESTONE: strong to very strong, olive gray (5Y 4/1), microcrystalline, massive, with dark greenish gray (5G 4/1) secondary staining, slightly decomposed, slightly to moderately disintegrated, intensely to moderately fractured.		285
									(287.7') Shaly CLAYSTONE: moderately strong, medium dark gray (N4), slightly fissile, intensely fractured, chert lenses.		
290				Run 29			120/ 120	85	(291.2') SANDSTONE: strong, dark greenish gray (5G 4/1), calcareous with calcite nodules, fine grained, massive, fresh, competent, slightly fractured to unfractured, slightly micaceous. [COW RUN FRM]		290
295									(297-297.9') Changes to sandy shale with significant white limestone nodules.		295
300											300

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Drilling End Date:	02/17/2016 15:25	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Sonic & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.98	Seal Material(s):	Bentonite Chips
Logged By:	D. Mateas & M. Muenich	Location (X,Y):	N 351,068.1 E 2,096,227.1	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
300				Run 30			117/ 120	42	(300.2-302') Changes to Shaly SANDSTONE: fissile, intensely fractured.		300
305									(304.1') Sandy SHALE: moderately strong, dark greenish gray (5G 4/1), fine grained, fissile, large limestone nodules, slightly decomposed, slightly disintegrated, intensely to moderately fractured, clay infillings in fractures. [COW RUN FRM]		305
									(307.1') SANDSTONE: strong, dark greenish gray (5G 4/1), fine grained, massive, significant clay lenses, slightly decomposed, slightly disintegrated, moderately fractured.		
310				Run 31			120/ 120	74	(310.8') Clay lenses grade out, changes to fresh, competent and unfractured to slightly fractured, cross bedding. [COW RUN FRM]		310
315									(318.3') Changes to Shaly SANDSTONE: fissile, moderately disintegrated, intensely fractured.		315
320											320

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Drilling End Date:	**02/17/2016 15:25**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Sonic & Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.98**	Seal Material(s):	**Bentonite Chips**
Logged By:	**D. Mateas & M. Muenich**	Location (X,Y):	**N 351,068.1 E 2,096,227.1**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
320				Run 32			120/ 120	81	(319.7') CLAYSTONE: moderately strong, dark greenish gray (5G 4/1), massive, yellowish gray (5Y 8/1), limestone nodules, slightly decomposed, slightly disintegrated, slightly fractured.		320
325									(328.5') Grades to Sandy CLAYSTONE.		325
330									End of borehole at 330 ft bgs. Well installed on 03/04/2016		330
335											335

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									See log 2016-10 for 0-215 ft bgs.	4" rods dropped from 110-114 ft. See log for 2016-10. Blind drilled from 0-215 ft bgs. 6" PVC casing set from 0-219 ft bgs before geophysical analysis.	0
5											5
10											10
15											15
20											20

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20									See log 2016-10 for 0-215 ft bgs.		20
25											25
30											30
35											35
40											40

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40									See log 2016-10 for 0-215 ft bgs.		40
45											45
50											50
55											55
60											60

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									See log 2016-10 for 0-215 ft bgs.		60
65											65
70											70
75											75
80											80

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Address: 7397 North State Route 7, Cheshire, OH

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80									See log 2016-10 for 0-215 ft bgs.		80
85											85
90											90
95											95
100											100

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Address: 7397 North State Route 7, Cheshire, OH

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100									See log 2016-10 for 0-215 ft bgs.		100
105											105
110											110
115											115
120											120

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Project: CHE8259A
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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120									See log 2016-10 for 0-215 ft bgs.		120
125											125
130											130
135											135
140											140

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
140									See log 2016-10 for 0-215 ft bgs.		140
145											145
150											150
155											155
160											160

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
160									See log 2016-10 for 0-215 ft bgs.		160
165											165
170											170
175											175
180											180

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
180									See log 2016-10 for 0-215 ft bgs.		180
185											185
190											190
195											195
200											200

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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
200									See log 2016-10 for 0-215 ft bgs.		200
205											205
210											210
215				Run 1			58/72	22.2	(215') CLAYSTONE: very weak to weak, dark reddish brown (10R 3/4) [primary color] with dusky yellow (5Y 6/4) and very dusky purple (5RP 2/2) [secondary colors], highly decomposed, intensely disintegrated, intensely to very intensely fractured, slickensides. [CLARKSBURGH RED BEDS]		215
220									(219') Silty SANDSTONE: strong, medium bluish gray (5G 5/1), fine grained, massive, micaceous,	6" of Split Spoon lost down hole.	220

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Boring/Well No. 2016-11
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Drilling Start Date:	02/17/2016 17:15	Boring Depth (ft):	261	Well Depth (ft):	255
Drilling End Date:	02/20/2016 14:45	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.88	Seal Material(s):	Bentonite Chips
Logged By:	Doug Mateas	Location (X,Y):	N 351,060.5 E 2,096,240.3	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
220				Run 2			109/120	63.3	calcareous nodules, fresh, competent, slightly fractured. [MORGANTOWN FRM] (221') Cross-bedding appears.		220
225									(223.3') CLAYSHALE: dark reddish brown (10R 3/4) to greenish gray (5GY 6/1), moderately strong, fissile, slightly decomposed, moderately disintegrated, intensely fractured, micaceous and sandy to 223.8 ft, calcareous nodules, clay infillings in fractures. [MORGANTOWN FRM] (225.2') SANDSTONE to Shaly SANDSTONE: moderately strong to strong, medium bluish gray (5B 5/1), massive, fresh, competent to slightly disintegrated, unfractured to moderately fractured, very micaceous. [MORGANTOWN FRM] (228.8') Changes to Shaly SANDSTONE: cross-bedding, pyritic, clay infillings in fractures.		225
230				Run 3			108/120	9.58	(231') Grades to very intensely fractured.		230
235									(232.9') Sandy CLAYSHALE: weak to strong, medium bluish gray (5B 5/1) and medium dark gray (N4), fissile, fine grained, pyritic, micaceous, slightly decomposed, intensely disintegrated, intensely fractured, calcareous nodules. [MORGANTOWN FRM]		235
240									(237.3') CLAYSTONE: moderately strong to strong, dark reddish brown (10R 3/4), light olive brown (5Y 5/6) and dusky purple (5RP 2/2), massive, slightly fissile at top, moderately decomposed, slightly disintegrated, moderately fractured, calcareous nodules, slickensides.		240

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Drilling Start Date:	02/17/2016 17:15	Boring Depth (ft):	261	Well Depth (ft):	255
Drilling End Date:	02/20/2016 14:45	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Sonic	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:	Versa-Sonic	DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Rob Hamilton	Top of Casing Elev. (ft):	866.88	Seal Material(s):	Bentonite Chips
Logged By:	Doug Mateas	Location (X,Y):	N 351,060.5 E 2,096,240.3	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
240				Run 4			61/ 120	49.2	[MORGANTOWN FRM]		240
									(242.2') Sandy SILTSTONE: strong, dark greenish gray (5G 4/1) [silt] and light gray (N7) [sand], massive, locally fissile, slightly decomposed, slightly disintegrated, slightly fractured, slickensides, pyritic. [MORGANTOWN FRM]		
245											245
250				Run 5			108/ 120	69.6			250
255									(253.6') SANDSTONE: strong, light gray (N7), fine grained, slightly silty, micaceous, massive, fresh, competent to slightly disintegrated, slightly fractured. [MORGANTOWN FRM]		255
									(258.1') Sandy silty SHALE: moderately strong, greenish gray (5G 6/1) and medium dark gray (N4), fissile, slightly decomposed, moderately disintegrated, moderately fractured, clay infillings		
260											260

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Client: AEP-Gavin
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Drilling Start Date:	**02/17/2016 17:15**	Boring Depth (ft):	**261**	Well Depth (ft):	**255**
Drilling End Date:	**02/20/2016 14:45**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Sonic**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Versa-Sonic**	DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Rob Hamilton**	Top of Casing Elev. (ft):	**866.88**	Seal Material(s):	**Bentonite Chips**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 351,060.5 E 2,096,240.3**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
260									in fractures, pyritic.		260
									End of borehole at 261 ft bgs. Well installed on 03/04/2016		
265											265

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BORING LOG

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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									(0') Overburden. Sandy Clay, wet.		0
5											5
10											10
15									(15') Clayey SHALE: dark gray, dry. (cuttings)		15
20											20

NOTES:

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96153-R
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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20											20
25											25
30											30
35											35
40											40

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96153-R
Page: 3 of 8

Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40									(40') Sandy SHALE: dark gray with some red bed.		40
45											45
50									(50') CLAYSTONE: red. (cuttings)		50
55											55
60											60

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96153-R
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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60											60
65											65
70											70
75											75
80											80

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Client: AEP-Gavin
Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96153-R
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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80											80
85											85
90				Run 1			72/120	46	(90') CLAYSTONE: dark reddish brown (10R 3/4) [primary] and light olive brown (5Y 5/6) [secondary], moderately strong to weak, thickly/massive bedding, slightly decomposed, moderately disintegrated, moderately to intensely fractured. [LOWER CLARKSBURGH RED BEDS]		90
95											95
100											100

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG

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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100				Run 2			66/ 120	36	(100') SANDSTONE: pyritic, with calcite nodules, fine grained, dark greenish gray (5G 4/1). [MORGANTOWN]		100
									(103') Interbedded Silt/mud, dark reddish brown (10R 3/4) and dark greenish gray (5G 4/1).		
105									(104-105.5') Silty SANDSTONE: very pyritic, micaceous.		105
110				Run 3			90/ 120	81	(110') SANDSTONE: medium bluish gray (5B 5/1), calcareous, micaceous, fine to medium grained, strong, thickly bedded, fresh to slightly decomposed, competent, moderately fractured. [MORGANTOWN]		110
115									(115') Sandy SILTSTONE: pyritic, dark greenish gray (5G 4/1), strong to moderately strong, thickly bedded, slightly decomposed, slightly disintegrated, moderately to intensely fractured. [MORGANTOWN]		115
120											120

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG

Boring/Well No. 96153-R
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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120				Run 4			96/ 120	60	(120') Sandy MUDSHALE: dark reddish brown (10R 3/4), moderately strong, medium bedded, moderately to slightly decomposed, slightly disintegrated, intensely fractured, non calcareous. [MORGANTOWN]		120
									(122.5') Silty SANDSTONE: dark greenish gray (5G 4/1), micaceous, slightly calcareous, strong, thickly bedded, fresh to slightly decomposed, slightly disintegrated, moderately fractured. [MORGANTOWN]		
125											125
130				Run 5			108/ 120	78	(130') Silty SANDSTONE: some calcite nodules, strong, dark greenish gray (5G 4/1), thickly bedded, fresh to slightly decomposed, slightly disintegrated, moderately fractured, pyritic, micaceous. [MORGANTOWN]		130
									(133-134') Bands of sandy mudstone.		
135									(136-137.5') Intensely fractured.		135
									(137.5') SANDSTONE: medium grained, micaceous, gray (N5), strong. [MORGANTOWN]		
140											140

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96153-R
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Drilling Start Date:	02/18/2016 09:35	Boring Depth (ft):	150	Well Depth (ft):	112
Drilling End Date:	02/20/2016 12:30	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	773.89	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 355,633.4 E 2,095,228.4	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
140				Run 6			93/ 120	54	(140') SANDSTONE: fine to medium grained, gray (N6), calcareous, strong, thickly bedded, fresh, competent to slightly disintegrated, moderately fractured.		140
									(142') LIMESTONE: dark greenish gray (5G 4/1), shaly, strong to moderately strong, thickly bedded, slightly to moderately disintegrated, moderately decomposed, intensely fractured.		
145											145
									(146') MUDSTONE/CLAYSHALE: dark reddish brown (10R 3/4) [primary] and light olive brown (5Y 5/6) [secondary], thickly bedded, moderately strong, moderately decomposed, moderately disintegrated, intensely to moderately fractured.		
150									End of borehole at 150 ft bgs. Well installed on 02/29/2016		150
155											155

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96154-R
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Drilling Start Date:	02/15/2016 12:30	Boring Depth (ft):	125	Well Depth (ft):	96
Drilling End Date:	02/17/2016 14:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	738.22	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 353,185.4 E 2,095,695.2	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									Overburden.	Auger no SPT or logging.	0
5											5
10											10
15											15
20											20

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96154-R
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Drilling Start Date:	**02/15/2016 12:30**	Boring Depth (ft):	**125**	Well Depth (ft):	**96**
Drilling End Date:	**02/17/2016 14:50**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**Frontz Drilling**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Air Rotary**	DTW During Drilling (ft):		Riser Material:	**Sch 80 PVC**
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	**Sch 80 PVC 4" Pre-packed**
Driller:	**Aaron Mackey**	Top of Casing Elev. (ft):	**738.22**	Seal Material(s):	**Bentonite Chips**
Logged By:	**C. Christensen**	Location (X,Y):	**N 353,185.4 E 2,095,695.2**	Filter Pack:	**Sidley #5 & #7 (Choker Sand)**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20											20
									(22.5') Mudstone/decomposed sandstone.		
25											25
30											30
35											35
40											40

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
Boring/Well No. 96154-R
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Drilling Start Date:	02/15/2016 12:30	Boring Depth (ft):	125	Well Depth (ft):	96
Drilling End Date:	02/17/2016 14:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	738.22	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 353,185.4 E 2,095,695.2	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40											40
45											45
50											50
55											55
60											60

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG

Boring/Well No. 96154-R
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Drilling Start Date:	02/15/2016 12:30	Boring Depth (ft):	125	Well Depth (ft):	96
Drilling End Date:	02/17/2016 14:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	738.22	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 353,185.4 E 2,095,695.2	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60											60
65				Run 1			48/ 120	50	(65') MUDSTONE [CLARKSBURGH RED BEDS]		65
									(67.5') Silty MUDSTONE [CLARKSBURGH RED BEDS]		
70											70
75				Run 2			112/ 120	70	(75') SANDSTONE: medium bluish gray (5B 5/1), calcareous, micaceous, pyritic, calcite nodules near 80', strong, thickly bedded, fresh to slightly decomposed, slightly disintegrated, slightly fractured. [MORGANTOWN]		75
80											80

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Project: CHE8259A
Address: 7397 North State Route 7, Cheshire, OH

BORING LOG
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Drilling Start Date:	02/15/2016 12:30	Boring Depth (ft):	125	Well Depth (ft):	96
Drilling End Date:	02/17/2016 14:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	738.22	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 353,185.4 E 2,095,695.2	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80									(80') Shaly MUDSTONE: dusky red (5R 4/2), slightly calcareous with sand lenses, moderately strong to weak, thickly bedded, moderately decomposed, moderately disintegrated, moderately fractured.		80
85				Run 3			80/120	7	(84') SANDSTONE: pyritic, fine grained, medium bluish gray (5B 5/1), strong, medium thick bedded, slightly decomposed, not calcareous, slightly disintegrated, moderately to intensely fractured. [MORGANTOWN]		85
90									(85') SANDSTONE: pyritic, micaceous, fine to medium grained, medium bluish gray (5B 5/1), strong, medium/thick bedded, slightly decomposed, slightly disintegrated, intensely fractured. Medium grained Sandstone for 85-97' (very fractured). Then alternating bands of sandy siltstone and sandstone, cross bedding near top.		90
95				Run 4			96/120	84	(95') MUDSTONE: dusky red (5R 4/2), with sandy inclusions, moderately strong, thickly bedded, slightly decomposed, moderately disintegrated, moderately fractured.		95
100									(97.5') Sandy SILTSTONE: dark greenish gray (5G 4/1), some sandstone lenses, moderately strong, medium bedded, fresh to slightly decomposed, slightly to moderately disintegrated, slightly fractured.		100

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BORING LOG
Boring/Well No. 96154-R
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Drilling Start Date:	02/15/2016 12:30	Boring Depth (ft):	125	Well Depth (ft):	96
Drilling End Date:	02/17/2016 14:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	738.22	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 353,185.4 E 2,095,695.2	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100											100
									(101.5') SANDSTONE: micaceous, fine grained, gray (N8/N4) bedding, thinly bedded, strong, fresh, slightly fractured.		
105				Run 5			84/ 120	64	(105') Alternating SANDSTONE and SILTSTONE: micaceous, bedded, calcareous, fine grained, fresh, slightly disintegrated, moderately fractured.		105
110											110
115				Run 6			102/ 120	52	(115') Sandy SILTSTONE: pyritic, micaceous (light), dark greenish gray (5G 4/1), some calcite nodules, moderately strong, thickly bedded, slightly decomposed, moderately disintegrated, intensely fractured.		115
									(118') Shaly SILTSTONE: with calcite nodules, dark greenish gray (5G 4/1), moderately strong, thickly bedded, moderately decomposed, moderately fractured, moderately disintegrated.		
120											120

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BORING LOG
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Drilling Start Date:	02/15/2016 12:30	Boring Depth (ft):	125	Well Depth (ft):	96
Drilling End Date:	02/17/2016 14:50	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	Frontz Drilling	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Air Rotary	DTW During Drilling (ft):		Riser Material:	Sch 80 PVC
Drilling Equipment:		DTW After Drilling (ft):		Screen Material:	Sch 80 PVC 4" Pre-packed
Driller:	Aaron Mackey	Top of Casing Elev. (ft):	738.22	Seal Material(s):	Bentonite Chips
Logged By:	C. Christensen	Location (X,Y):	N 353,185.4 E 2,095,695.2	Filter Pack:	Sidley #5 & #7 (Choker Sand)

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120											120
									(122') LIMESTONE: gray (N4), with calcareous nodules, strong, thickly bedded, slightly decomposed, moderately disintegrated, moderately fractured.		
125									End of borehole at 125 ft bgs. Well installed on 03/03/2016		125
130											130

NOTES:

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

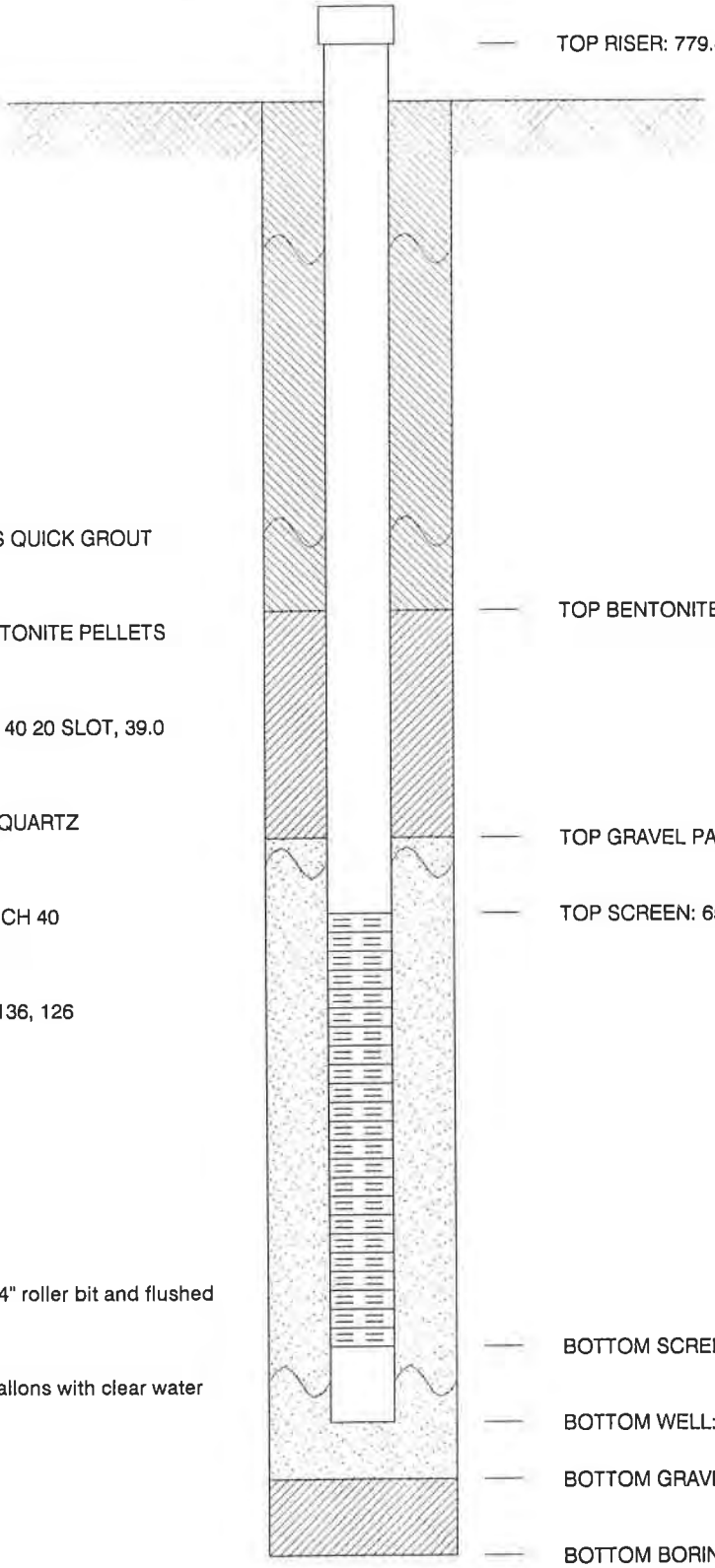
WELL No. **96152** BORING No. **96152** INSTALLED **06/27/96**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

OORDINATES **N 355,372.6 E 2,065,722.5**

SYSTEM **STATE PLANE**

GROUND ELEVATION 777.28 FT.



GROUT SEAL: 300 GALLONS QUICK GROUT

BENTONITE SEAL: 75# BENTONITE PELLETS

SCREEN: 2.0 DIA., PVC SCH 40 20 SLOT, 39.0

GRAVEL PACK: 700# NO. 4 QUARTZ

RISER PIPE: 2.0, DIA., PVC SCH 40

SPACERS, DPTH: 166, 146, 136, 126

Boring was drilled using 53/4" roller bit and flushed with mud.

Hole was flushed with 500 gallons with clear water prior to

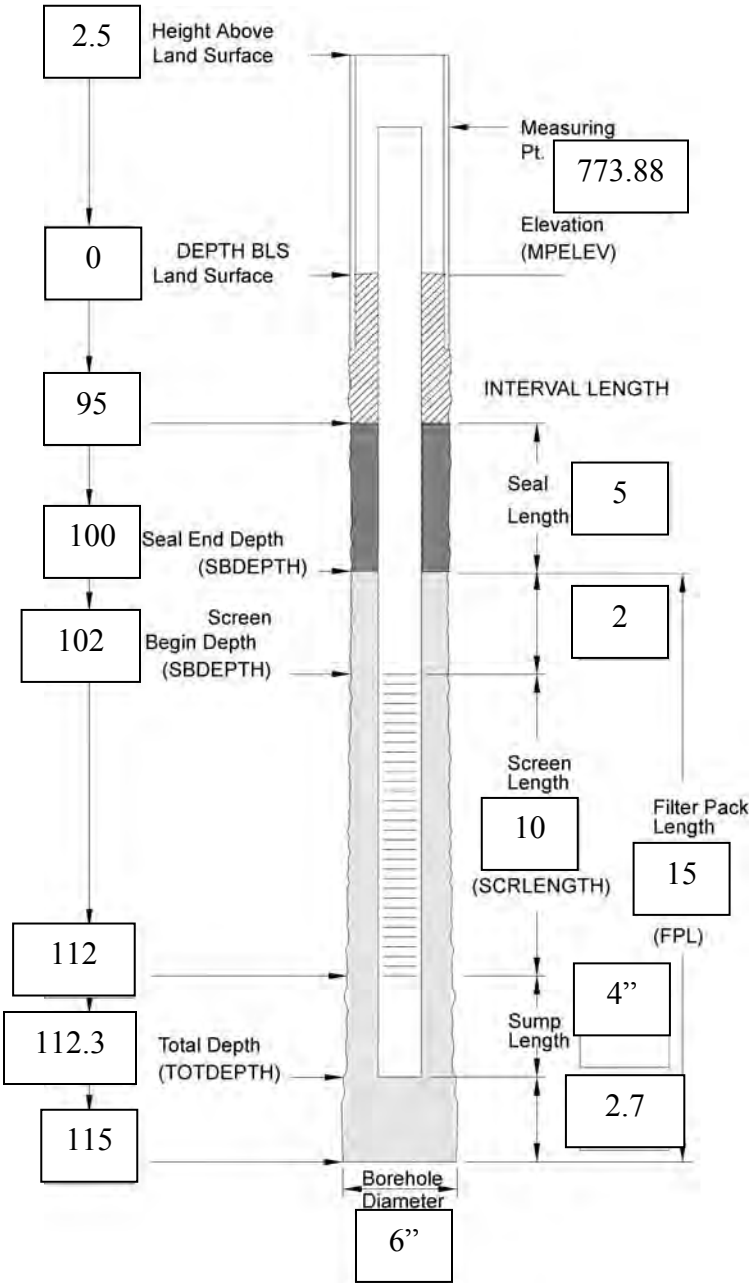
installing well.

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 96153R
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: Chad Gregory
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 2/29/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Comments
Original borehole 150'. Backfilled w/ Bentonite chips to 115'.

Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: 150 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 2/29/16
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (2 bags)
Set-up/Hydration Time: 2 hours
Placement Method: Poured, Gravity
Vol. Fluid Added: N/A, submerged
Filter Pack
Type: Sidley #5 & #7 above screen (Choker Sand)
Source: Sidley
Amount Used: 3 – 50 lb bags #5, 0.5 – 50 lb bag #7
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite chips (8 - 50 lb bags)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered _____ (Gal): -

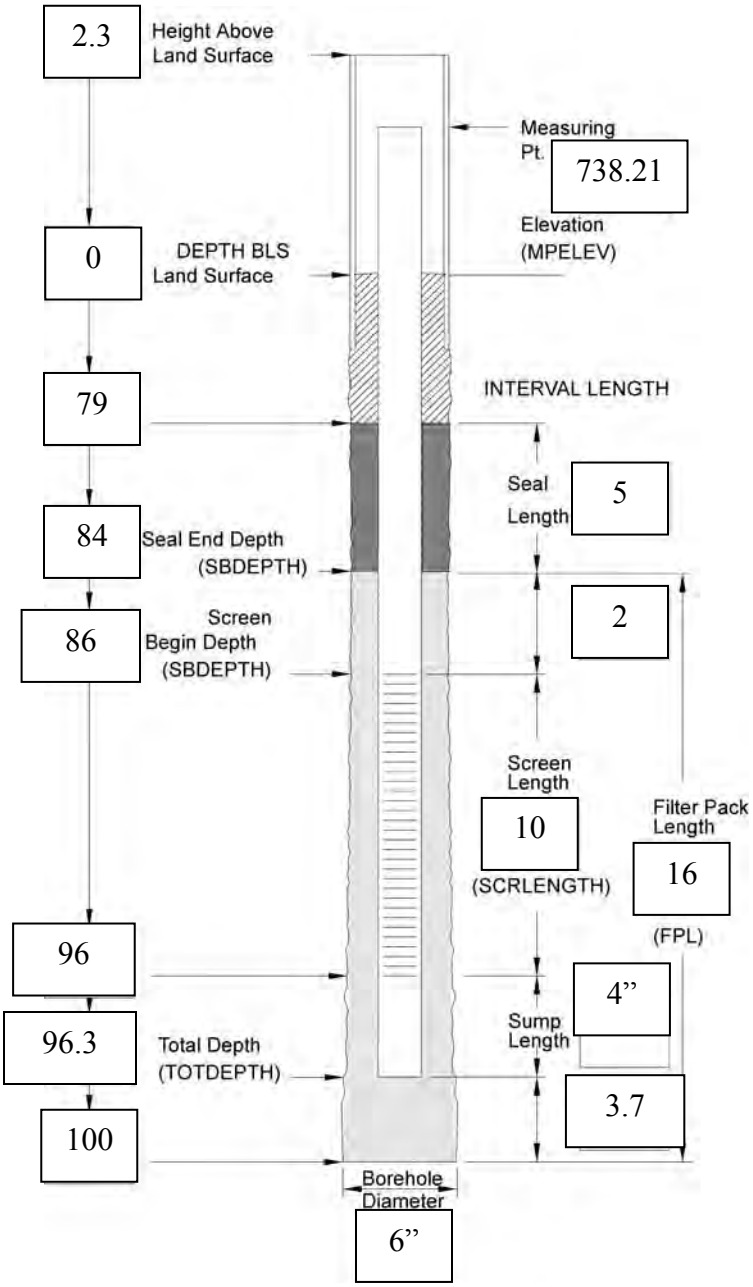
Reviewed By: J. Couch Date: 4/13/016

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 96154R
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: Chad Gregory
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 3/3/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Comments
Original borehole 125'. Backfilled w/ Bentonite chips to 100'. 70' of 6" PVC surface casing left in hole, (10' to 80' bgs)

Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: 150 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/2/16
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (1 bag)
Set-up/Hydration Time: >12 hours
Placement Method: Poured, Gravity
Vol. Fluid Added: 5 Gallons
Filter Pack
Type: Sidley #5 & #7 above screen (Choker Sand)
Source: Sidley
Amount Used: 4.5 – 50 lb bags #5, 0.5 – 50 lb bag #7
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y) N)
Material: Bentonite chips (5 - 50 lb bags)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

GEOMON CONSTRUCTION

JOB NUMBER _____

COMPANY **OHIO POWER COMPANY**

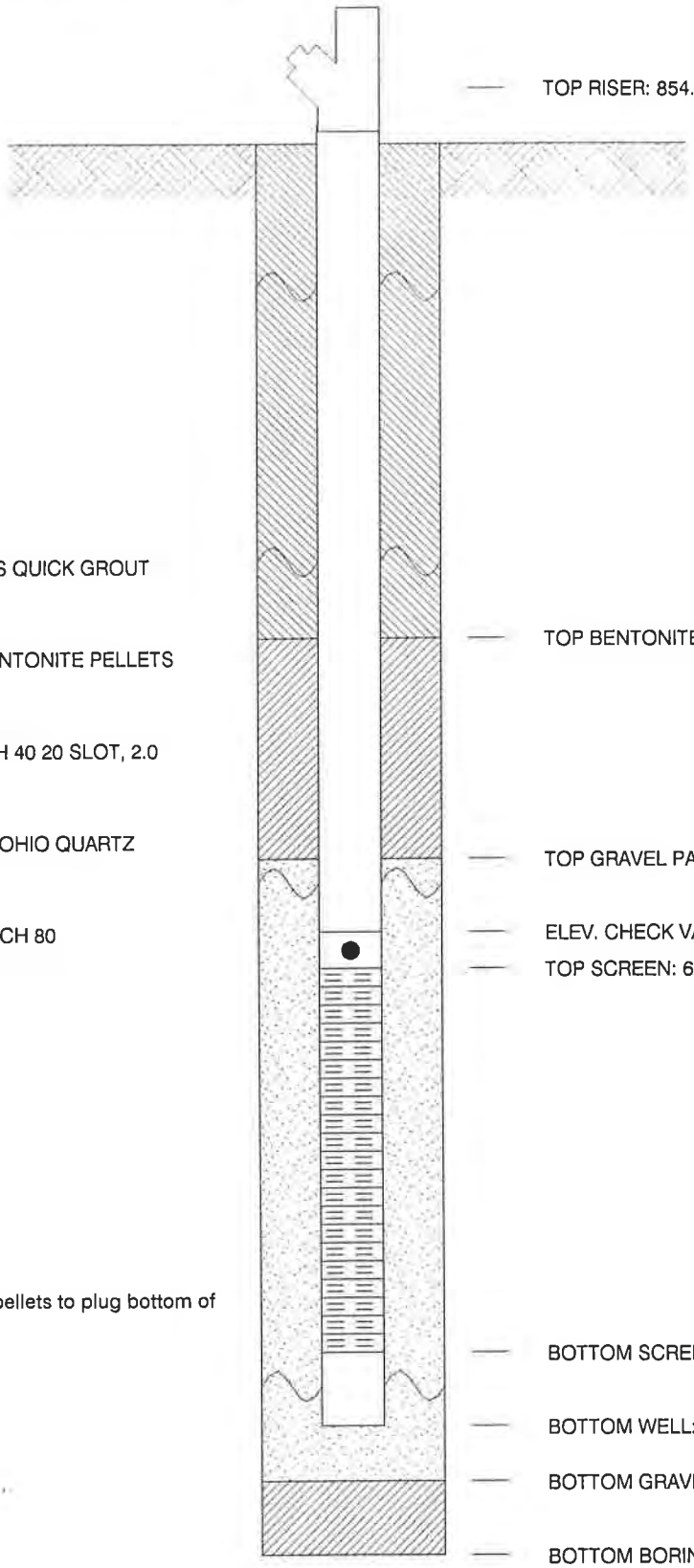
WELL No. **96156** BORING No. **96156** INSTALLED **01/11/96**

PROJECT **GAVIN PLANT FLY ASH POND CLOSURE**

COORDINATES **N 352,338.7 E 2,061,912.6**

SYSTEM **STATE PLANE**

GROUND ELEVATION 851.81 FT.



GROUT SEAL: 100 GALLONS QUICK GROUT

BENTONITE SEAL: 450# BENTONITE PELLETS

SCREEN: 1.25 dia., PVC SCH 40 20 SLOT, 2.0

GRAVEL PACK: 100# NO. 4 OHIO QUARTZ

RISER PIPE: 1.0, dia., PVC SCH 80

SPACERS, dpth: n\a

Tremied 450# of bentonite pellets to plug bottom of hole.

SWL at installation 76.3.

Brass weight on 3/16 tubing.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

AEP CIVIL ENGINEERING LABORATORY

MONITORING WELL CONSTRUCTION

JOB NUMBER _____

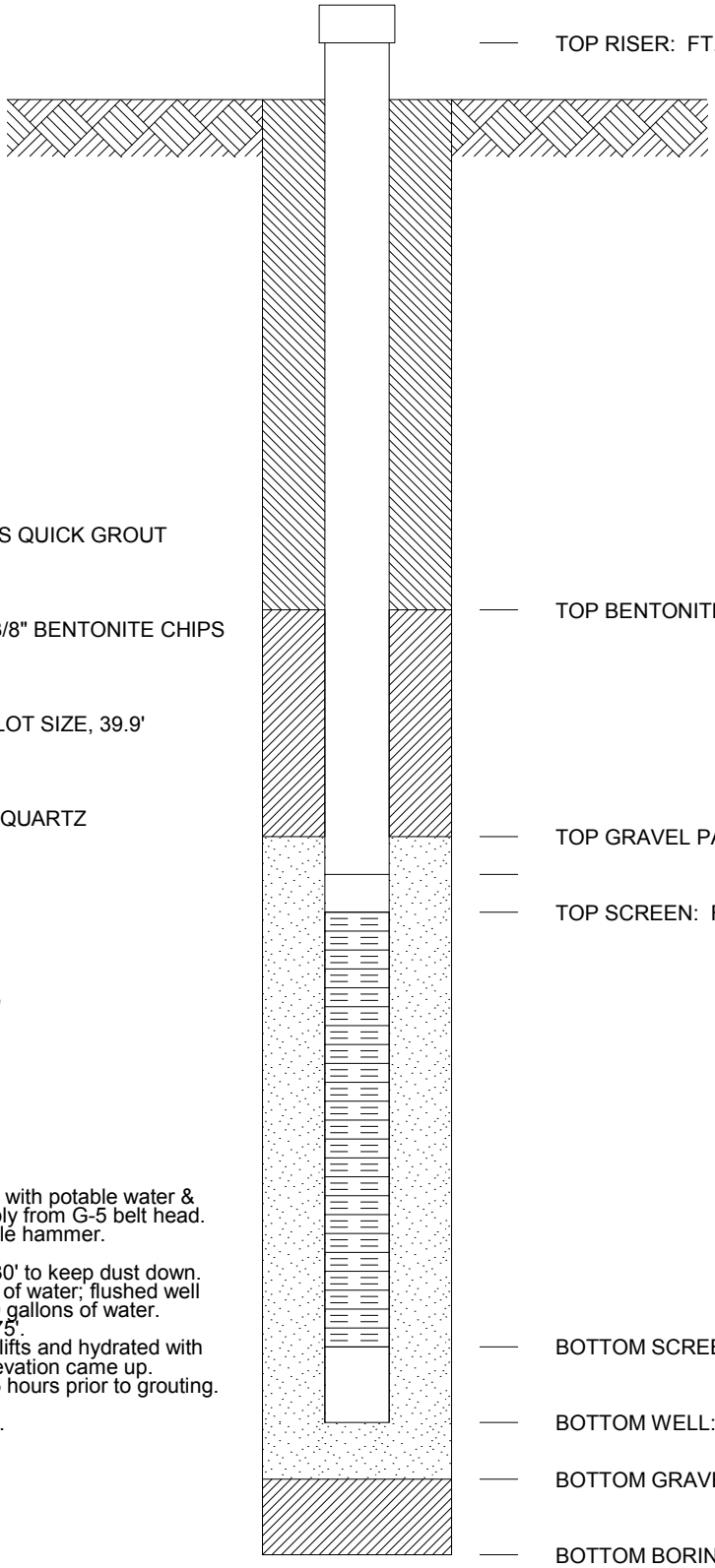
COMPANY _____ WELL No. **9910** BORING No. **9910** INSTALLED _____

PROJECT **GAVIN FLY ASH POND CLOSURE**

COORDINATES _____

SYSTEM _____

GROUND ELEVATION FT.



TOP RISER: FT.

TOP BENTONITE SEAL: FT.

TOP GRAVEL PACK: FT.

TOP SCREEN: FT.

BOTTOM SCREEN: FT.

BOTTOM WELL: FT.

BOTTOM GRAVEL PACK: FT.

BOTTOM BORING: FT.

GROUT SEAL: 120 GALLONS QUICK GROUT

BENTONITE SEAL: 150 lbs 3/8" BENTONITE CHIPS

SCREEN: 2" dia., PVC; 20 SLOT SIZE, 39.9'

GRAVEL PACK: 1700 lbs #4 QUARTZ

RISER PIPE: 2", dia., PVC

SPACERS, DEPTH: 85' & 75'

Notes: Decon all tools and rig with potable water & alconox mix. Water supply from G-5 belt head.
Boring drilled with 8" down hole hammer.

1. Used water injection after 30' to keep dust down.
2. Used approx. 2000 gallons of water; flushed well with approx. 750 to 1000 gallons of water.
3. Spider spacers at 85' and 75'.
4. Bentonite seal placed in 1' lifts and hydrated with potable water as seal elevation came up.
5. Seal allowed to hydrate 1.5 hours prior to grouting.

SWL at 97.8' after installation.

GEOMCNST GAVIN_FLY_ASH_POND.GPJ AEP.GDT 3/7/12

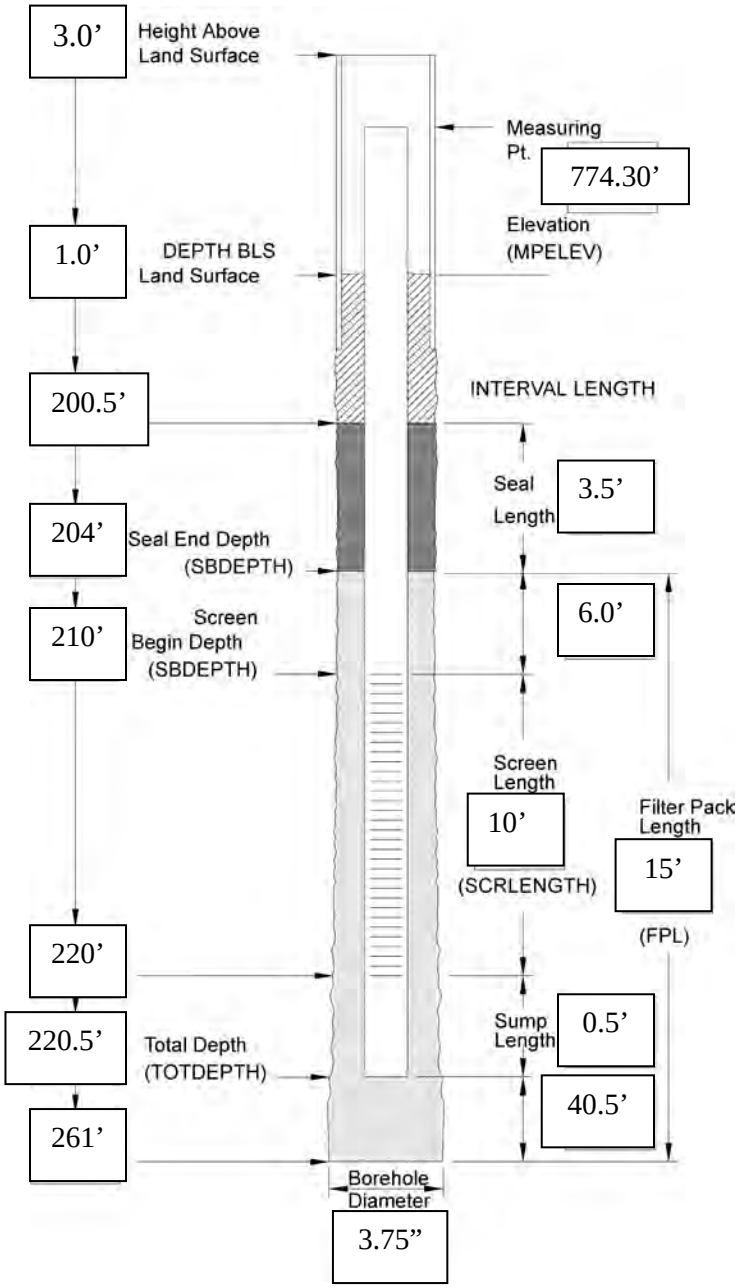
Geosyntec consultants
engineers | scientists | innovators

PROJECT # CHE8273

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): MW-20
Drilling Company: Frontz Drilling Company
Drillers: D. Schrecengost/R. VanDyne
Geologist/Engineer: J. Bannantine
Signature: _____

Site: AEP Gavin FAR Closure
Installation Method: Sonic – Rock Coring
Casing Installation Date (INSDATE): 05/08/2012
Well Type (WTCCODE): Monitoring
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): ___



Comments
Pre-packed, 20-slot screen.
Borehole cored and logged from 0-261 ft. bgs prior to well construction.

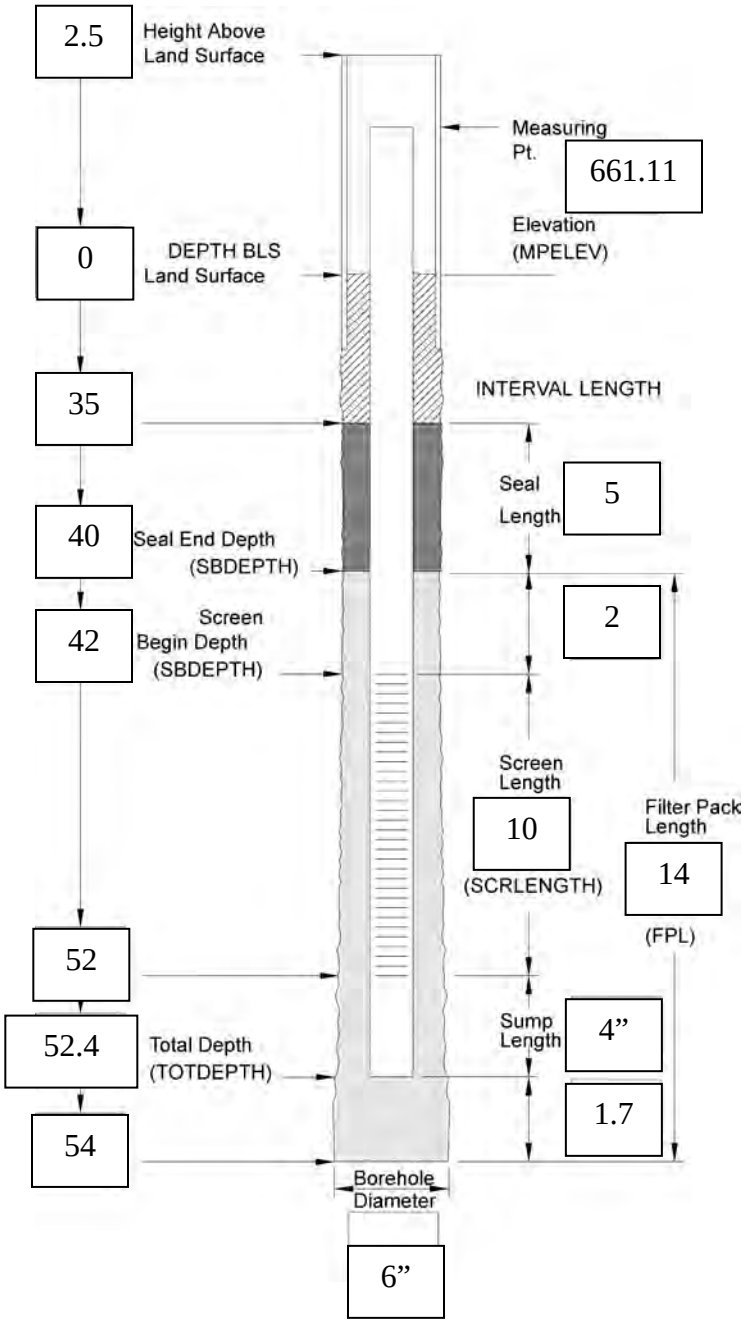
Well Completion
Guard Posts (Y / N) Date: 5/17/2012
Surface Pad Size: 2.0 ft x 2.0 ft
Protective Casing or Cover
Diameter/Type: 5.5-inch steel Procasing.
Depth BGS: _____ Weep Hole ([Y] / N)
Grout
Composition/Proportions: 3.5 bags per 100 gallons water
Quik-Grout
Placement Method: _____
Tremie
Seal Date: 5/16/12
Type: 3/8-inch bentonite chips.
Source: Haliburton
Set-up/Hydration Time: 16 hours
Placement Method: Gravity
Vol. Fluid Added: None
Filter Pack
Type: Filter sand #5
Source: RW Sidley, Inc
Amount Used: 5 bags (50 lb bags)
Placement Method: Gravity
Well Riser Pipe
Casing Material (CMACODE): Schedule 40 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Pre-pack schedule 40 PVC
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.020 in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap ([Y] / N)
Type/Length: Schedule 40 PVC/0.4 feet
Backfill Plug ([Y] / N)
Material: Bentonite chips
Placement Method: Gravity
Set-up/Hydration Time: 16 hours
Total Water Volume During Construction
Introduced (Gal): 0 Recovered (Gal): 30
Reviewed
By: _____ Date: _____

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-03
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: Chase Christenson
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: HSA
Casing Installation Date (INSDATE): 3/23/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: 120 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/22/16
Type: 3/8" Med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (1 bag)
Set-up/Hydration Time: 2 Hours
Placement Method: Poured, Gravity
Vol. Fluid Added: 5 gal
Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 2 – 50 lb bags #5, 0.5 – 50 lb bag #7
Placement Method: Poured Gravity

Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" Pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y / N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite Chips, 2 – 50 lb bags
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered _____ (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

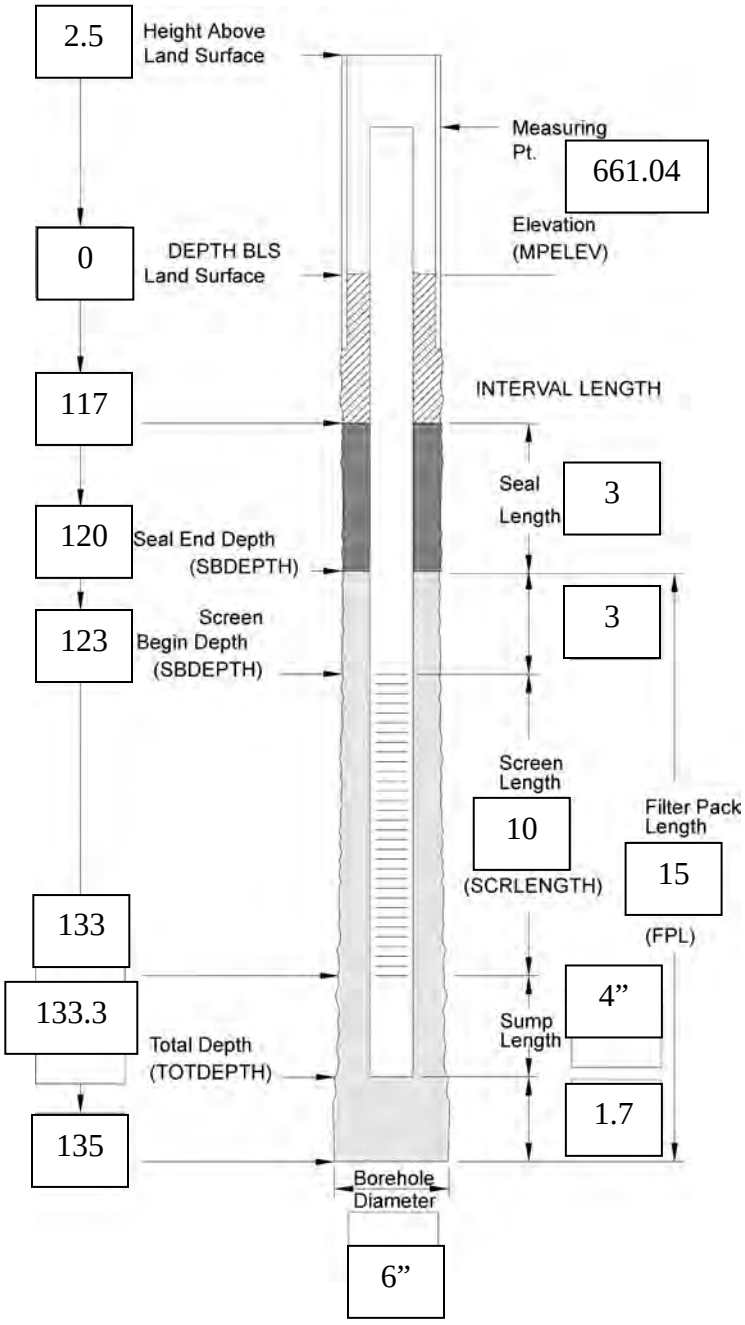
Comments
Feet unless otherwise indicated. Original borehole 75'
Backfilled w/ bentonite chips to 54', 2' of sand below Well.

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-04
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: C. Christenson / M. Muenich
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 3/28/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Comments
Feet unless otherwise indicated; Original borehole 150'. Backfilled w/ Bentonite chips to 135'; used 1 centralizer For riser; removed 10' of 6" surface casing, 24' still in ground.

Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: _____
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/28/16 @ 1230
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (1 bag)
Set-up/Hydration Time: 2 Hours
Placement Method: Poured, Gravity
Vol. Fluid Added: N/A, submerged
Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 1 – 50 lb bags #5, 3 – 50 lb bag #7
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" Pre-packed

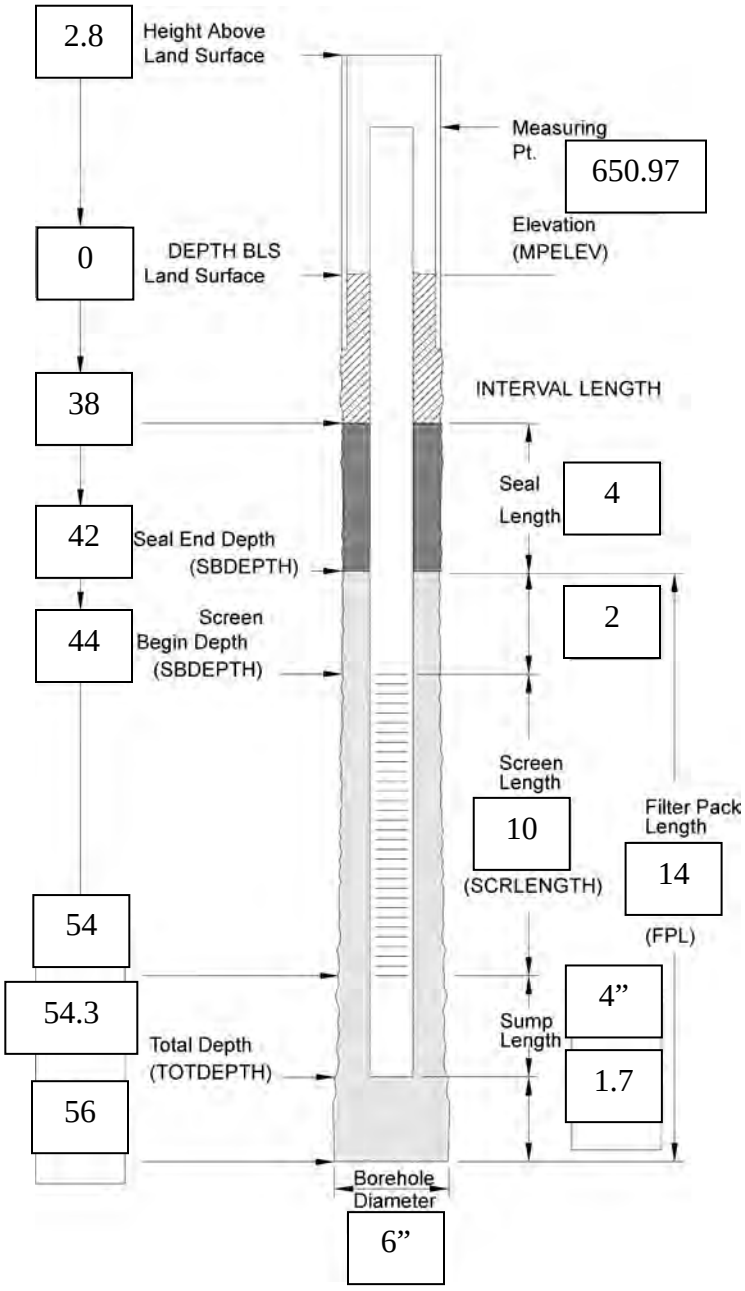
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y / N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite Chips (2 – 50 lb bags)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered _____ (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-05
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: Mike Muenich
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 3/29/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: _____
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/29/16 @ 1115
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (1 bag)
Set-up/Hydration Time: Overnight
Placement Method: Poured, Gravity
Vol. Fluid Added: 1 – 50 lb bag + 5 gal.
Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 3 – 50 lb bags #5, 1 – 50 lb bag #7
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" Pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite Chips (2 – 50 lb bags)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

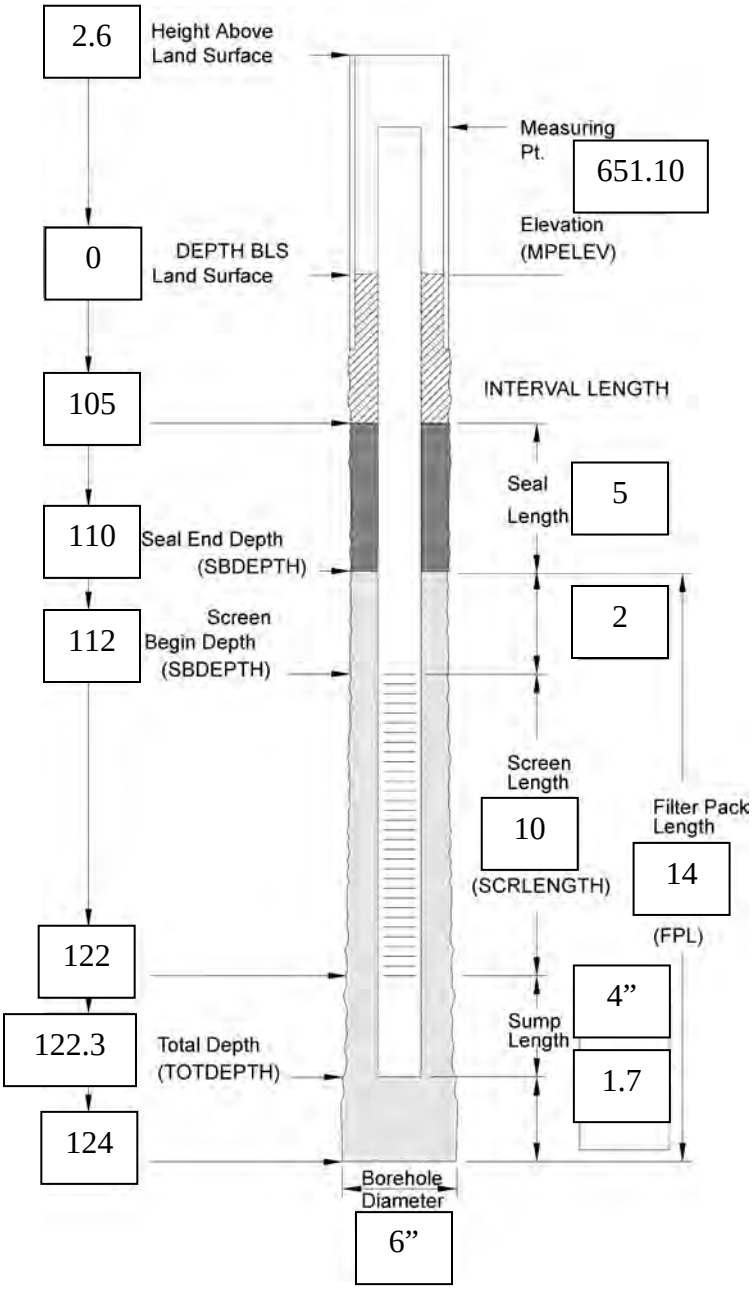
Comments
Feet unless otherwise indicated; total boring depth was 60'. Backfilled to 56' w/ bentonite chips.

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-06
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: Mike Muenich
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 3/29/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: _____
6 gal water: 94 lbs portland cement: 5 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/29/16 @ 1615
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Bentonite (1 bag)
Set-up/Hydration Time: Overnight
Placement Method: Poured, Gravity
Vol. Fluid Added: 1 – 50 lb bag + 5 gal.
Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 3 – 50 lb bags #5, 1 – 50 lb bag #7
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite Chips (1 – 50 lb bag)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered _____ (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

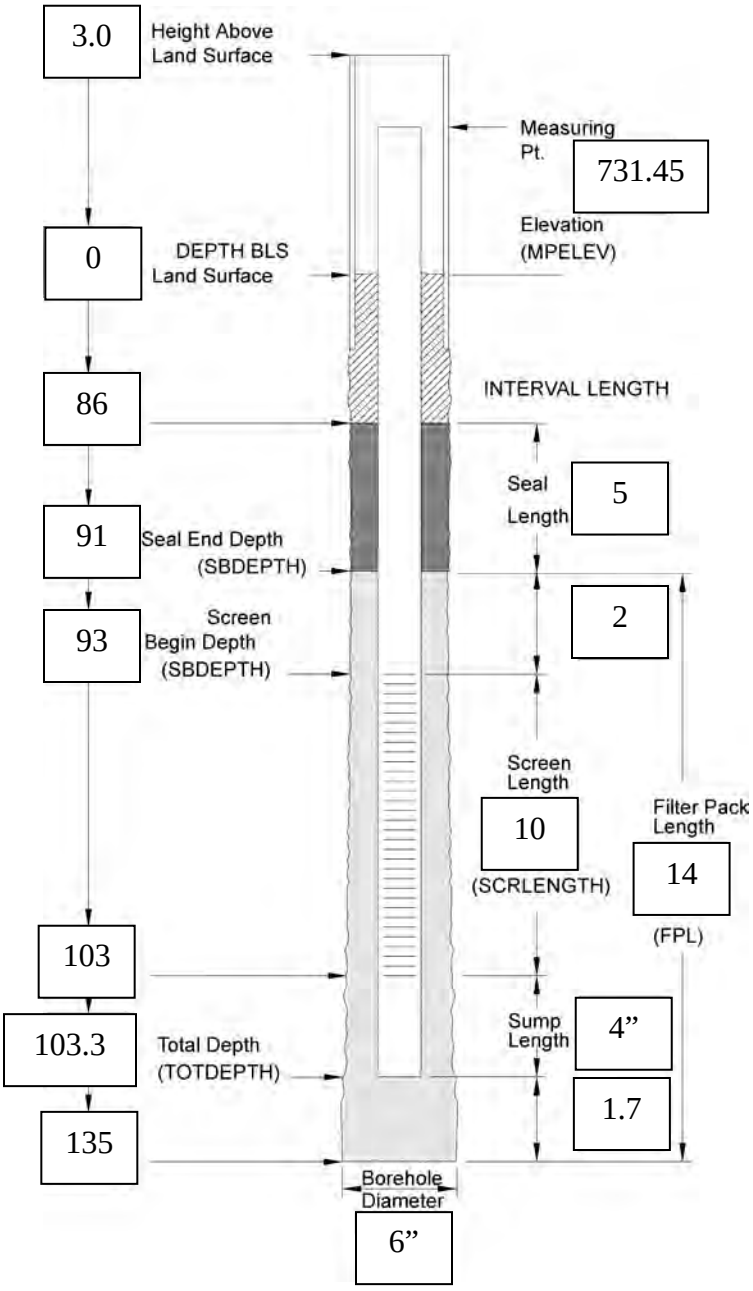
Comments
Feet unless otherwise indicated. Original borehole 140'.
Collapse to ~105', reamed out to 125'.
Backfilled w/ Bentonite chips to 124'.

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-07
Drilling Company: Frontz Drilling
Drillers: Rob Hamilton
Geologist/Engineer: Chase Christenson
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 3/29/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Comments
Feet unless otherwise indicated. Original borehole 135' Backfilled w/ bentonite chips to 105'. #5 Sidley Sand 105' – 103.3'.

Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: 2' x 2' ft x 0.5 ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)
Grout
Composition/Proportions: 245 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

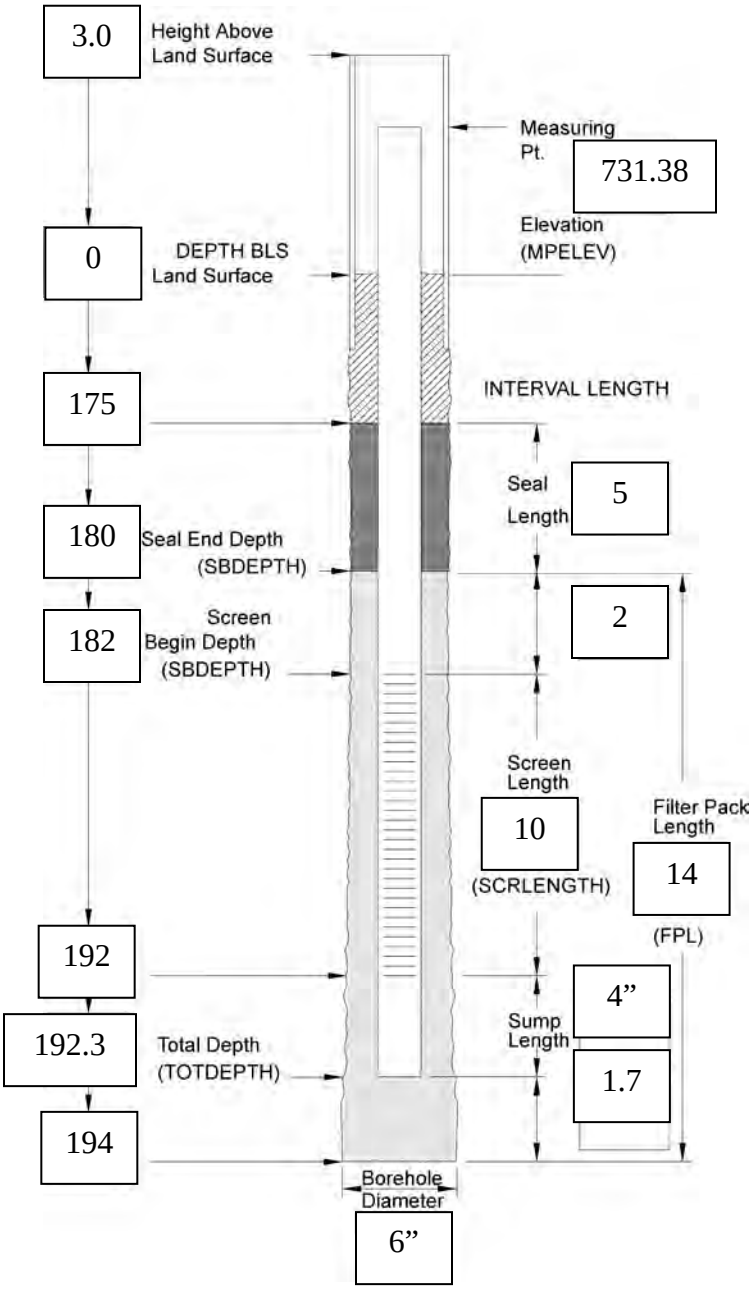
Seal Date: 3/22/16
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (1 bag)
Set-up/Hydration Time: Overnight
Placement Method: Poured, Gravity
Vol. Fluid Added: 1 – 50 lb bag + 5 gal.
Filter Pack
Type: Sidley #5 & #7 above screen (Choker Sand)
Source: Sidley
Amount Used: 8 – 50 lb bags
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" Pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y / N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite Chips
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered _____ (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

Geosyntec consultants

WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-08
Drilling Company: Frontz Drilling
Drillers: Rob Hamilton
Geologist/Engineer: Chase Christenson
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Sonic
Casing Installation Date (INSDATE): 3/23/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Comments
Feet unless otherwise indicated. Original borehole 221'. Backfilled w/ bentonite chips to 194'.

Well Completion
Guard Posts (Y / N) Date: 3/30/16
Surface Pad Size: 2' x 2' ft x 0.5 ft
Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: 2 Weep Hole (Y / N)
Grout
Composition/Proportions: 460 gal
6 gal water: 94 lbs portland cement: 5 lbs bentonite grout
Placement Method: Pressure Tremie

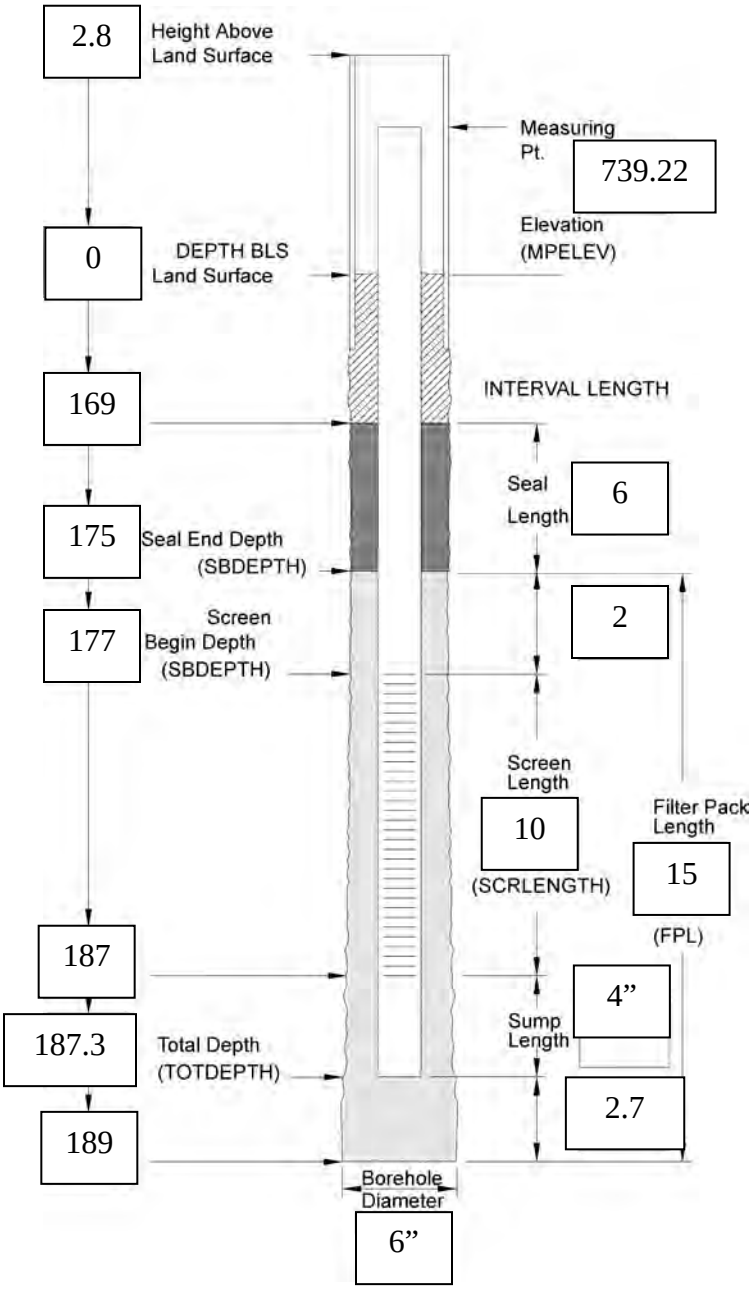
Seal Date: 3/23/16
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Bentonite
Set-up/Hydration Time: 2 days
Placement Method: Poured, Gravity
Vol. Fluid Added: N/A, submerged
Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 4 – 50 lb bags #5, 1 – 50 lb bag #7
Placement Method: Poured Gravity
Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.
Screen
Material: Sch. 80 PVC 4" Pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y / N)
Type/Length: Sch. 80 PVC 2"
Backfill Plug (Y / N)
Material: Bentonite, Holeplug
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A
Total Water Volume During Construction
Introduced (Gal): - Recovered (Gal): -
Reviewed By: J. Couch Date: 4/13/2016

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WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-09
Drilling Company: Frontz Drilling
Drillers: Aaron Mackey
Geologist/Engineer: Chad Gregory
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Air Rotary
Casing Installation Date (INSDATE): 3/3/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)

Grout
Composition/Proportions: 150 gal
7 gal water: 94 lbs portland cement: 4 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/3/16
Type: 3/8" med, crushed bentonite chips – 2 bags
Source: Baroid – Wyoming Sodium Bentonite
Set-up/Hydration Time: 2 hours
Placement Method: Poured, Gravity
Vol. Fluid Added: N/A, submerged

Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 4 – 50 lb bags #5
Placement Method: Poured Gravity

Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.

Screen
Material: Sch. 80 PVC 4" pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"

Backfill Plug (Y / N)
Material: Bentonite chips (2 – 50 lb bags)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A

Total Water Volume During Construction
Introduced (Gal): _____ Recovered (Gal): _____

Comments
Feet unless otherwise indicated. Original borehole 200'. Backfilled w/ Bentonite chips to 189'. 70' of 6" PVC surface casing left in hole 10 – 80' bgs.

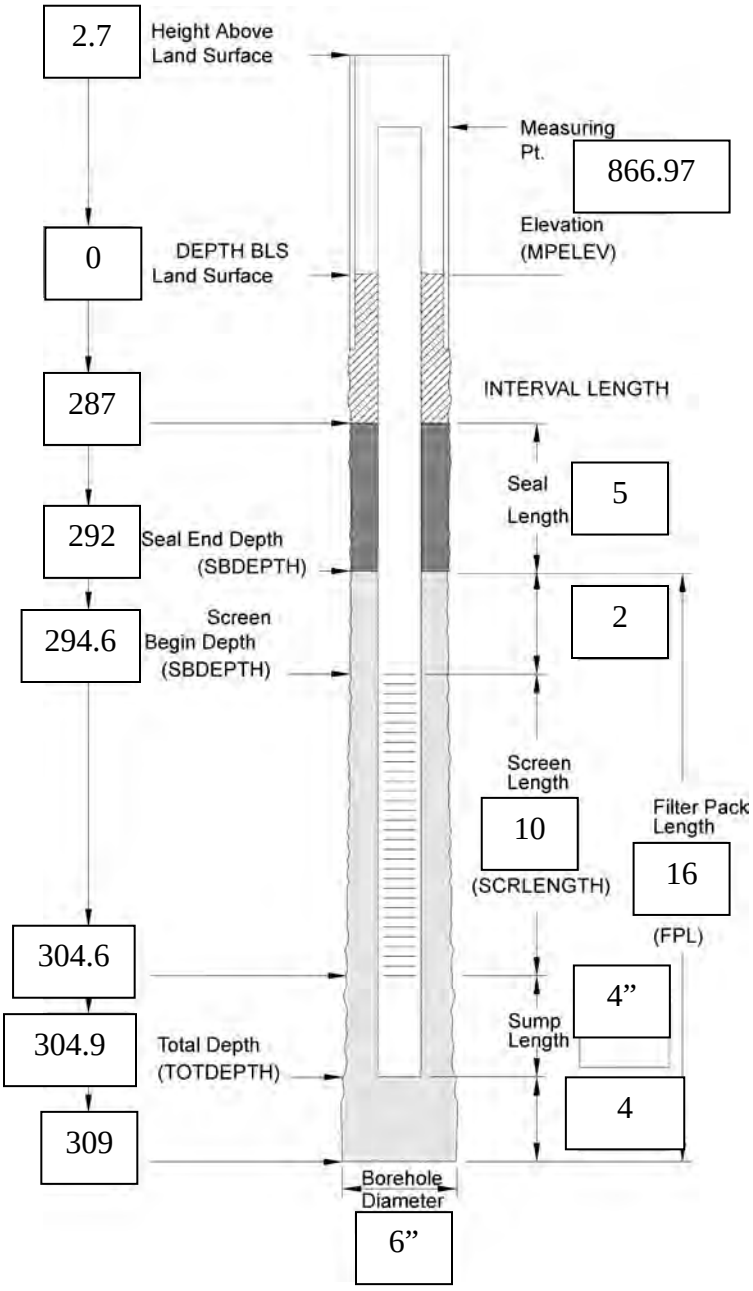
Reviewed By: J. Couch Date: 4/13/2016

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WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-10
Drilling Company: Frontz Drilling
Drillers: Rob Hamilton
Geologist/Engineer: Chad Gregory
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Sonic
Casing Installation Date (INSDATE): 3/4/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Comments
Feet unless otherwise indicated. Original borehole 330'. Backfilled w/ Bentonite Chips to 309'. Water introduced during construction to clear out unsettled` Sand. 6" PVC surface casing left in place 20'-230' bgs.

Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)

Grout
Composition/Proportions: 625 gal
6 gal water: 94 lbs portland cement: 7 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/4/16
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (4 bags)
Set-up/Hydration Time: >2 hours
Placement Method: Poured, Gravity
Vol. Fluid Added: N/A, submerged

Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 9 – 50 lb bags
Placement Method: Poured Gravity

Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.

Screen
Material: Sch. 80 PVC 4" pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"

Backfill Plug (Y / N)
Material: Bentonite, Holeplug (10 bags)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A

Total Water Volume During Construction
Introduced (Gal): 250 Recovered (Gal): 200

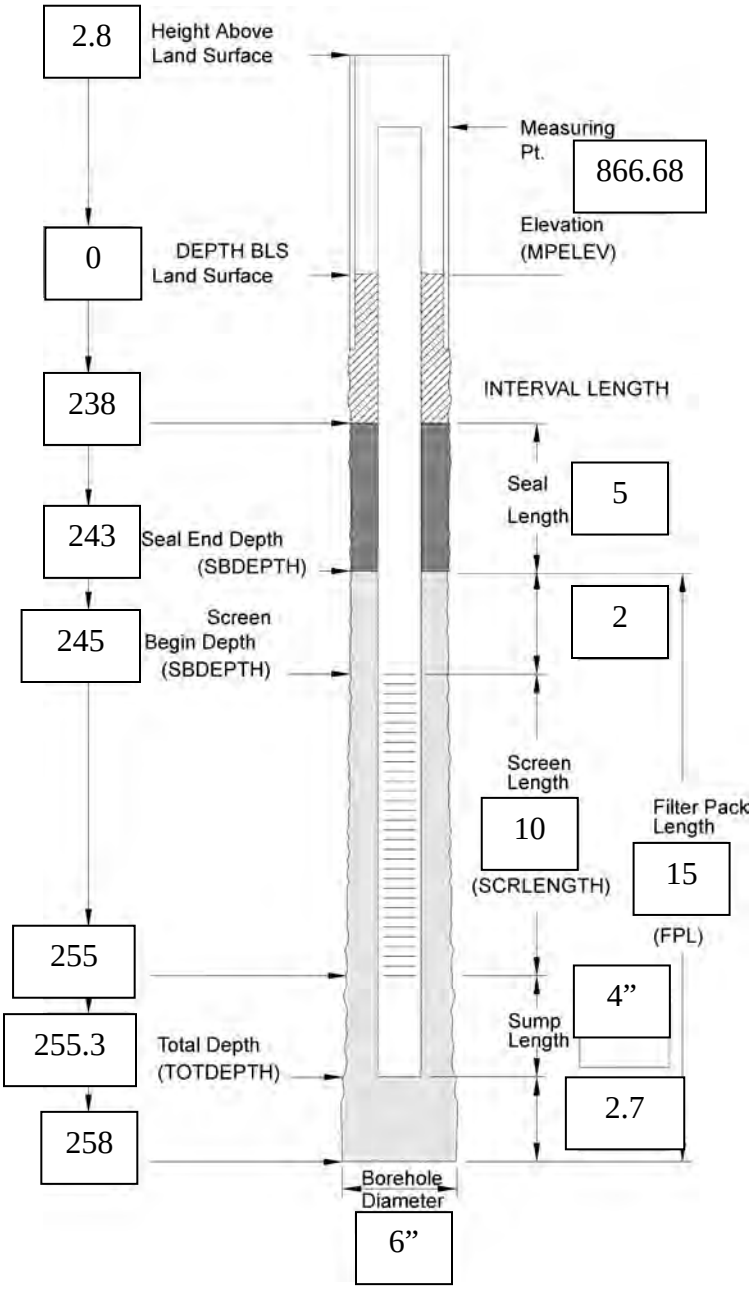
Reviewed By: J. Couch Date: 4/13/2016

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WELL CONSTRUCTION LOG
ABOVE GROUND COMPLETION

Well I.D. (LOCID): 2016-11
Drilling Company: Frontz Drilling
Drillers: Rob Hamilton
Geologist/Engineer: Chad Gregory
Signature: _____

Site: AEP – Gavin Project Number: CHE8259A
Installation Method: Sonic
Casing Installation Date (INSDATE): 3/4/16
Well Type (WTCCODE): Monitoring Well
Well Completion Method (WCMCODE): _____
Geologic Completion Zone (GZCODE): _____



Well Completion
Guard Posts (Y / N) Date: _____
Surface Pad Size: _____ ft x _____ ft

Protective Casing or Cover
Diameter/Type: 6" Steel, 5' length
Depth BGS: _____ Weep Hole (Y / N)

Grout
Composition/Proportions: 575 gal
6 gal water: 94 lbs portland cement: 7 lbs bentonite grout
Placement Method: Pressure Tremie

Seal Date: 3/3/16
Type: 3/8" med, crushed bentonite chips
Source: Baroid – Wyoming Sodium Bentonite (4 bags)
Set-up/Hydration Time: 24 hours
Placement Method: Poured, Gravity
Vol. Fluid Added: N/A, submerged

Filter Pack
Type: Sidley #5 & #7 (Choker Sand)
Source: Sidley
Amount Used: 9 – 50 lb bags
Placement Method: Poured Gravity

Well Riser Pipe
Casing Material (CMACODE): Sch. 80 PVC
Casing Inside Diameters (CASDIAM): 2.0 in.

Screen
Material: Sch. 80 PVC 4" pre-packed
Inside Diameter (SCRDIAM): 2.0 in.
Screen Slot Size: (SOUA): 0.01 (10-Slot) in.
Percent Open Area (PCTOPEN): _____
Sump or Bottom Cap (Y) N)
Type/Length: Sch. 80 PVC 2"

Backfill Plug (Y / N)
Material: Bentonite, Holeplug (1 bag)
Placement Method: Poured, Gravity
Set-up/Hydration Time: N/A

Total Water Volume During Construction
Introduced (Gal): - Recovered _____ (Gal): -

Reviewed By: J. Couch Date: 4/13/2016

Comments
Feet unless otherwise indicated. Original borehole 261'. Backfilled w/ Bentonite holeplug to 258'. 6" PVC surface casing left in place 10'-230' bgs.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
Page: 1 of 7

Drilling Start Date:	**10/03/2016 16:20**	Boring Depth (ft):	**134.1**	Well Depth (ft):	**119.4**
Drilling End Date:	**10/05/2016/ 09:40**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**AEP Service Corp.**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Rotary**	DTW After Drilling (ft):	**107.8**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Diedrich D-120**	Ground Surface Elev. (ft):	**727.961**	Screen Material:	**Sch 40 PVC Slotted**
Driller:	**Zach Racer**	Top of Casing Elev. (ft):	**730.757**	Seal Material(s):	**Bentonite Pellets and Grout**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 349,987.86 E 2,102,252.07**	Filter Pack:	**Global #5 Sand**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
0									Overburden.	0-2 ft: #2 Gravel. 2-3 ft: #57 Gravel Advanced through overburden and incompetent rock with 8" hollow-stem auger to 87 ft bgs. Before well installation, AEP Service Corp. reamed 6" diameter borehole to 121 ft bgs.	0
5											5
10											10
15											15
20											20

NOTES:
1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
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Drilling Start Date:	10/03/2016 16:20	Boring Depth (ft):	134.1	Well Depth (ft):	119.4
Drilling End Date:	10/05/2016/ 09:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.961	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.757	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,987.86 E 2,102,252.07	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20									Overburden.		20
25											25
30											30
35											35
40											40

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
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Drilling Start Date:	10/03/2016 16:20	Boring Depth (ft):	134.1	Well Depth (ft):	119.4
Drilling End Date:	10/05/2016/ 09:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.961	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.757	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,987.86 E 2,102,252.07	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40									Overburden.		40
45											45
50										Centralizer set at 50' bgs.	50
55											55
60											60

NOTES:
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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
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Drilling Start Date:	10/03/2016 16:20	Boring Depth (ft):	134.1	Well Depth (ft):	119.4
Drilling End Date:	10/05/2016/ 09:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.961	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.757	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,987.86 E 2,102,252.07	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									Overburden.		60
65											65
70											70
75											75
80											80

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3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
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Drilling Start Date:	**10/03/2016 16:20**	Boring Depth (ft):	**134.1**	Well Depth (ft):	**119.4**
Drilling End Date:	**10/05/2016/ 09:40**	Boring Diameter (in):	**6**	Well Diameter (in):	**2**
Drilling Company:	**AEP Service Corp.**	Sampling Method(s):	**Rock Core**	Screen Slot (in):	**0.010**
Drilling Method:	**Rotary**	DTW After Drilling (ft):	**107.8**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Diedrich D-120**	Ground Surface Elev. (ft):	**727.961**	Screen Material:	**Sch 40 PVC Slotted**
Driller:	**Zach Racer**	Top of Casing Elev. (ft):	**730.757**	Seal Material(s):	**Bentonite Pellets and Grout**
Logged By:	**Doug Mateas**	Location (X,Y):	**N 349,987.86 E 2,102,252.07**	Filter Pack:	**Global #5 Sand**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80									Overburden.		80
85										Advanced with 4" advancer (4" casing cutting edge and roller bit) from 87 to 99.3 ft bgs.	85
90											90
95										Set 4" steel casing through overburden and incompetent rock to 99.3 ft bgs. Cored with NQ-size core barrel with wireline system from 99.3 to 134.1 ft bgs.	95
100				Run 1			43/58	42.7	(99.3') CLAYSTONE: weak, dark reddish brown		100

NOTES:
1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
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Drilling Start Date:	10/03/2016 16:20	Boring Depth (ft):	134.1	Well Depth (ft):	119.4
Drilling End Date:	10/05/2016/ 09:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.961	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.757	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,987.86 E 2,102,252.07	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
100									(10R 3/4) with minor secondary colors of light olive brown (5Y 5/6) and very dusky purple (5RP 2/2), highly decomposed, moderately disintegrated, intensely fractured, massive.		100
				Run 2			120/ 120	67.9	(103.6') CLAYSHALE: strong, dark greenish gray (5G 4/1) with secondary grayish red (10R 4/2), massive, slightly decomposed, competent, unfractured.		
105									(104.7') Sandy silty SHALE: strong to very strong, light greenish gray (5G 4/1) with secondary grayish red (10R 4/2), massive, micaceous, fresh, competent, unfractured. [MORGANTOWN FRM.]		105
									(106.1') Changes to intensely fractured.		
									(107.9') Silty shaley SANDSTONE: strong to very strong, dark greenish gray (5G 4/1), massive, micaceous to very micaceous, fine to medium grained, fresh, competent, unfractured. [MORGANTOWN FRM.]		
110									(108.4') Sandy CLAYSTONE: very weak, dark greenish gray (5G 4/1), massive, micaceous, highly decomposed, moderately disintegrated, intensely fractured. [MORGANTOWN FRM.]		110
									(109.3') Silty shaley SANDSTONE: strong to very strong, dark greenish gray (5G 4/1), cross bedded, micaceous to very micaceous, fine to medium grained, fresh, competent, moderately to intensely fractured. [MORGANTOWN FRM.]		
				Run 3			110.5/ 120	47.5	(113.5') Silty SHALE: moderately strong, grayish red (10R 4/2), massive, slightly micaceous, fresh to slightly decomposed, competent, slightly fractured, slightly calcareous. [MORGANTOWN FRM.]		
115									(114.4') Changes to dark greenish gray (5G 4/1), clay content increases until 115.8 ft.		115
									(118.4') CLAYSTONE: very weak to weak, grayish red (10R 4/2), massive, slickensides, highly decomposed, intensely disintegrated,		
120											120

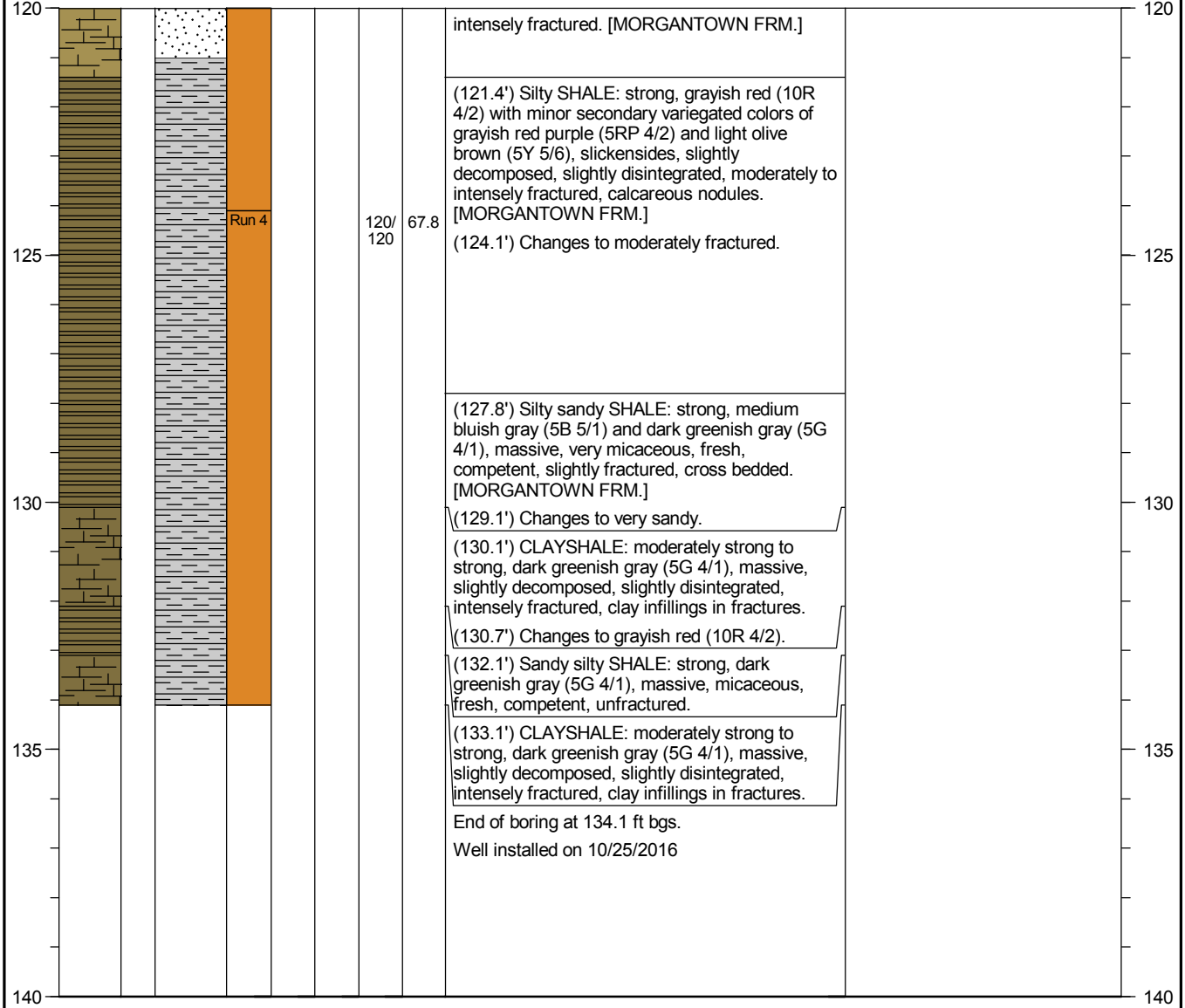
NOTES:
1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-16
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Drilling Start Date:	10/03/2016 16:20	Boring Depth (ft):	134.1	Well Depth (ft):	119.4
Drilling End Date:	10/05/2016/ 09:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.961	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.757	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,987.86 E 2,102,252.07	Filter Pack:	Global #5 Sand



NOTES:
1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-17
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Drilling Start Date:	09/28/2016 12:50	Boring Depth (ft):	229.3	Well Depth (ft):	213.4
Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS
0										0-2 ft: #2 Gravel. 2-3 ft: #57 Gravel. Advanced through overburden with 4" hollow stem auger to 58 ft bgs. Sampled every 5 ft with 1.5' split spoon. Before well installation, AEP Service Corp. reamed 6" diameter borehole to 217 ft bgs.
5										
10				SPT-1		8 8 7	10.5/18	15	(6.5') Shaley GRAVEL (GW); medium gray (N5), fine to coarse grained, well-graded, some clay, trace sand, moist, medium dense, subrounded to angular micaceous shaley gravel. [FILL]	
				SPT-2		5 9 11	9/18	20	(11.5') Gravelly CLAY (CL); medium gray (N5), low plasticity, some subangular to angular micaceous shaley gravel, medium stiff, moist. [FILL]	
15									(12.5') Shaley GRAVEL (GW); medium light gray (N6), fine to coarse grained, well-graded, angular shaley gravel, micaceous, some sand, medium dense, dry. [FILL]	
				SPT-3		7 17 23	10.5/18	40	(16.5') SAND (SW); moderately yellow (5Y 7/6) with secondary colors of medium light gray (N6) and very light gray (N8), fine to medium grained, well-graded, little subrounded sandstone gravel, dense, dry. [FILL]	
20										

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Drilling Start Date:	09/28/2016 12:50	Boring Depth (ft):	229.3	Well Depth (ft):	213.4
Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
20										Centralizer at 20' bgs.	20
				SPT-4		7 12 17	8/18	29	(21.5') Silty SAND (SM); very light gray sand (N7) and medium gray (N5), fine grained, poorly graded, some silt with platy/shaley structure, medium dense, dry to moist, sand content decreases and silt content increases down section. [FILL]		
25				SPT-5		10 14 18	11/18	32	(26.5') SAND (SW); dark yellowish orange (10YR 6/6) and grayish orange (10YR 7/4), fine to medium grained, well-graded, dense, moist. [FILL]		25
30				SPT-6		14 12 41	8.5/18	53	(31.5') Shaley GRAVEL (GW); medium light gray (N6) with some dusky yellow (5Y 6/4), fine to coarse grained angular shaley gravel, well-graded, trace sand, micaceous, very dense, moist. [FILL]		30
35				SPT-7		18 7 9	9/18	16	(36.5') Shaley GRAVEL (GW); medium gray (N5), fine to coarse grained subangular to angular shaley gravel, well-graded, few clay, trace sand, medium dense, dry. [FILL]		35
40											40

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Drilling Start Date:	09/28/2016 12:50	Boring Depth (ft):	229.3	Well Depth (ft):	213.4
Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
40											40
				SPT-8		12 14 14	5/18	28	(41.5') SAND (SP); dark yellowish orange (10YR 6/6) and very light gray (N8), medium grained, poorly graded, few poorly cemented sandstone gravel, medium dense, moist. [FILL]		
45				SPT-9		11 27 33	15/18	60	(46.5') CLAYSHALE: moderately brown (5YR 3/4), slickensides, hard, dry to moist, fissile.		45
50				SPT-10		50/4	1/4	50/4	(51.5') CLAYSHALE: moderately brown (5YR 4/4), fissile, hard, moist.		50
55				SPT-11		50/5	5/5	50/5	(56.5') Sandy CLAYSHALE: medium light gray (N6) and pale reddish brown (10R 5/4), fissile, hard, moist.		55
				Run 1			78.5/76	65.8	(58') SANDSTONE: light gray (N7) with medium gray (N5), cross bedded, strong, fine grained, fresh and competent, intensely fractured, very micaceous.	Auger refusal at 57.9 ft bgs. Cored with NQ-size core barrel with wireline system from 58 to 229.3 ft bgs.	
60											60

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Drilling Start Date:	09/28/2016 12:50	Boring Depth (ft):	229.3	Well Depth (ft):	213.4
Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
60									(58.8') Shaley silty SANDSTONE: strong, medium bluish gray (5B 5/1), fine grained, slightly fissile, fresh, competent, unfractured. (60.4') CLAYSTONE/CLAYSHALE: very weak, medium gray (N5), fissile, highly decomposed, moderately disintegrated, intensely fractured. (61.4') Changes to grayish red (5R 4/2).		60
65				Run 2			110.5/ 120	61.7	(64.3') MUDSTONE: very weak to weak, dark yellowish brown (10YR 4/2), fissile, very highly decomposed (residual soil), intensely disintegrated, intensely fractured. (66.1') Sandy silty SHALE: strong, dark yellowish brown (10YR 4/2), massive, locally fissile, fresh, competent, slightly fractured, micaceous, slickensides.		65
70									(70.4') MUDSTONE: very highly decomposed, grayish olive (10Y 4/2). (71.7') Carbonaceous SHALE: strong, grayish olive (10Y 4/2), massive, slickensides, calcareous, moderately decomposed, slightly disintegrated, moderately to intensely fractured.		70
75				Run 3			74/ 120	27.9	(76.3') Transitions to variegated colors of grayish red (5R 4/2) with some grayish olive (10Y 4/2) and light olive brown (5Y 5/6). (77.2') MUDSTONE: grayish red (10R 4/2), very highly decomposed.		75
80											80

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Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
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DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
80									(80.7') CLAYSTONE: very weak, pale reddish brown (10R 5/4), massive, highly decomposed, slightly disintegrated, intensely fractured, slightly calcareous. (82.2') Changes to not calcareous.		80
85				Run 4			70/ 120	42.5	(84.3') CLAYSTONE: weak, grayish red (5R 4/2) with some variegated colors of very dusky purple (5RP 2/2), light olive brown (5Y 5/6) and dark greenish gray (5G 4/1), highly decomposed, moderately disintegrated, slightly to moderately fractured, clay infillings in fractures, slickensides. (88.6') Changes to moderately strong, moderately decomposed.		85
90										Centralizer at 90' bgs.	90
95				Run 5			70/ 120	20.4	(94.3') Changes to primary color of pale reddish brown (10R 5/4), highly decomposed, intensely fractured, weak. (96.3') Changes to medium brown (5YR 4/4), moderately decomposed, moderately fractured.		95
100											100

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Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
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DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS
100										
105		▽		Run 6			120/120	68.7	(104.3') CLAYSHALE: weak, medium bluish gray (5B 5/1), massive to locally fissile, highly decomposed, intensely disintegrated, intensely fractured. (105.1') Changes to strong, fresh, competent, slightly fractured. (106.7') Sandy silty SHALE: strong, medium bluish gray (5B 5/1), massive, micaceous, fresh, competent, slightly fractured. [MORGANTOWN FRM.] (108.1') SANDSTONE: strong, medium bluish gray (5B 5/1), cross bedded, very micaceous, fine grained, fresh, competent, moderately fractured with vertical fracture from 108.5-109.4'. [MORGANTOWN FRM.]	
110										After coring, advanced with 4" advancer (4" casing cutting edge and roller bit) to 110 ft bgs to set 4" steel casing through overburden and incompetent rock.
115				Run 7			108/120	21.7	(111.7') CLAYSHALE: moderately strong, medium bluish gray (5B 5/1), fissile, moderately decomposed, slightly disintegrated, intensely fractured. [MORGANTOWN FRM.] (112.2') Changes to grayish red (5R 4/2). (114.1') Changes to medium bluish gray (5B 5/1). (114.8') Changes to grayish red (5R 4/2).	
120									(118.1') Changes to grayish red (10R 4/2) with some variegated colors of grayish red purple (5RP 4/2) and light olive brown (5Y 5/6), slickensides appear, intensely disintegrated,	

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Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
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DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
120									minor calcareous nodules, massive. (119.8') Changes to strong, slightly disintegrated.		120
				Run 8			120/ 120	57.5			
125									(127.2') Silty sandy SHALE: strong, medium bluish gray (5B 5/1), massive to slightly fissile, very micaceous, fresh, competent, slightly fractured, some clay infillings in fracture at top. [MORGANTOWN FRM.]		125
130									(130.5') CLAYSHALE: moderately strong, grayish red (10R 4/2), fissile, moderately decomposed, slightly disintegrated, intensely fractured, clay infillings in fractures.		130
				Run 9			119.5/ 120	57.1			
135									(134.3') Silty SHALE: strong to very strong, medium bluish gray (5B 5/1), massive, locally sandy from 135.0-136.5', slightly decomposed, competent, slightly fractured, pyritic, micaceous, minor calcareous nodules.		135
									(137.6') CLAYSHALE/CLAYSTONE: strong, medium bluish gray (5B 5/1), massive, slightly decomposed, competent, moderately fractured. (138.6') Changes to weak, fissile, moderately to highly decomposed, moderately disintegrated,		
140											140

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Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
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140									intensely fractured, clay infillings in fractures.		140
									(140.2') CLAYSHALE: moderately strong, grayish red (5R 4/2), fissile, highly decomposed, slightly disintegrated, intensely fractured, clay infillings in fractures.		
									(142.6') Carbonaceous SHALE: strong, grayish red (10R 4/2) with variegated colors of light olive brown (5Y 5/6) and grayish red purple (5RP 4/2), massive, slickensides, calcareous, slightly decomposed, moderately disintegrated, moderately to intensely fractured.		
145				Run 10			96.5/ 120	40.8	(144.3') Changes to slightly calcareous.		145
									(146.2') MUDSTONE: moderately strong, grayish red (5R 4/2) and medium bluish gray (5B 5/1), massive, slickensides, large amount of mud inclusions, moderately decomposed, moderately disintegrated, moderately fractured.		
150									(149.2') CLAYSHALE: strong, variegated colors of very dusky purple (5P 2/2), light olive brown (5Y 5/6), dark reddish brown (10R 3/4) and moderately red (5R 5/4), massive, slickensides, moderately decomposed, moderately disintegrated, moderately fractured.	Centralizer at 150' bgs.	150
155				Run 11			58/ 120	19.2	(155.1') CLAYSTONE: moderately strong to weak, grayish red (10R 4/2) with secondary medium bluish gray (5B 5/1), massive, slickensides, highly decomposed, moderately disintegrated, intensely fractured with clay infillings in fractures, slightly calcareous.		155
160											160

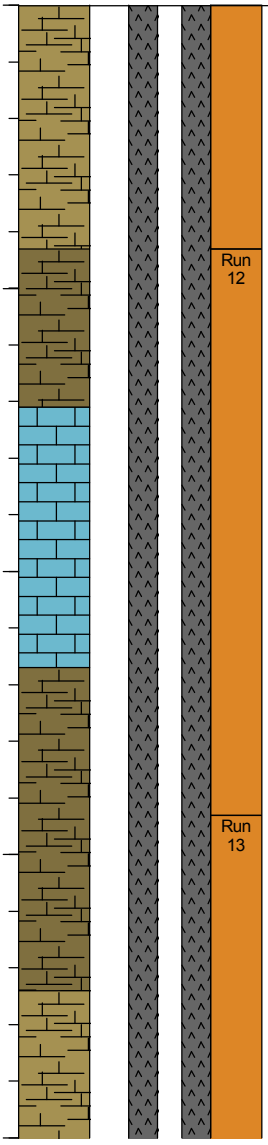
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Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand



DEPTH (ft)	Sample Type	Date & Time	Blow Counts	Recovery (in)	N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS
160							
165	Run 12			119.5/ 120	51.3	(164.3') CLAYSHALE/CLAYSTONE: moderately strong, variegated colors of very dusky purple (5P 2/2), light olive brown (5Y 5/6) and dark reddish brown (10R 3/4), massive, slickensides, moderately decomposed, moderately disintegrated, intensely fractured.	
						(167.1') Clayey LIMESTONE: weak to moderately strong, dark reddish brown (10R 3/4) with secondary light olive brown (5Y 5/6) and very dusky purple (5RP 2/2), microcrystalline, slickensides, moderately to intensely decomposed, moderately disintegrated, moderately to intensely fractured.	
170						(171.7') CLAYSHALE: very strong, dark reddish brown (10R 3/4), massive, slickensides, fresh, competent, slightly fractured.	
175	Run 13			119/ 120	47.5	(174.3') Large amount of competently healed fractures with mud infillings.	
						(176.8') Changes to intensely fractured.	
180						(177.4') CLAYSTONE: weak to moderately strong, grayish red (5R 4/2) with minor secondary colors of light olive brown (5Y 5/6) and grayish red purple (5RP 4/2), massive, slickensides, moderately to highly decomposed, moderately disintegrated, intensely fractured.	

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Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
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180									(178.6') Changes to strong, slightly decomposed, slightly disintegrated. (178.8') Calcareous nodules appear.		180
				Run 14			105/ 120	38.8			
185									(186.9') Large calcareous nodule. (187.2') Calcareous nodules disappear, changes to strong, fissile, moderately decomposed, competent.		185
									(188.3') Changes to medium bluish gray (5B 5/1), weak, highly decomposed, moderately disintegrated.		
190									(188.8') Carbonaceous SHALE: very strong, greenish gray (5G 6/1), massive, slickensides, pyritic at unit top, micaceous, fresh to slightly decomposed, competent, unfractured, calcareous.		190
									(189.9') CLAYSHALE: moderately strong, grayish brown (5YR 3/2) with thin laminations of light olive brown (5Y 5/6), fissile, moderately decomposed, competent to slightly disintegrated, intensely fractured.		
				Run 15			112/ 112	95.1			
195									(194.3') Sandy silty SHALE: strong, dark greenish gray (5G 4/1), massive, very fine grained sand, micaceous, fresh, competent, unfractured. [COW RUN FRM.]		195
200											200

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4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
Address: General James M. Gavin Power Plant

WELL LOG
Well No. MW-17
Page: 11 of 12

Drilling Start Date:	09/28/2016 12:50	Boring Depth (ft):	229.3	Well Depth (ft):	213.4
Drilling End Date:	10/03/2016 14:40	Boring Diameter (in):	6	Well Diameter (in):	2
Drilling Company:	AEP Service Corp.	Sampling Method(s):	SPT & Rock Core	Screen Slot (in):	0.010
Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Date & Time	COLLECT: Blow Counts	COLLECT: Recovery (in)	COLLECT: N Value RQD (%)	SOIL/ROCK VISUAL DESCRIPTION	REMARKS	DEPTH (ft)
200									(200.3') Changes to intensely fractured, some clay infillings in fractures until 200.7 ft.		200
				Run 16			120/ 120	70.0			
205									(205.3') Changes to moderately to intensely fractured. (206.1') Some clay infillings in fractures. (207.4') Changes to moderately fractured.		205
210									(210.7') Changes to intensely fractured. (212.3-213.6') Vertical fracture.		210
									(213.6-214.3') No recovery.		
				Run 17			115/ 120	48.8	(214.3') Changes to slightly fractured, no clay infillings in fractures [COW RUN FRM.]		
215									(215.5') 0.8 ft section with thin laminations of grayish red (10R 4/2) clayshale. (216.1') Changes to unfractured. (216.4-217') Changes to dark yellowish orange (10YR 6/6), slightly decomposed. (218.2') Thin grayish red (10R 4/2) laminations of clayshale.		215
220									(219') CLAYSHALE: moderately strong, grayish		220

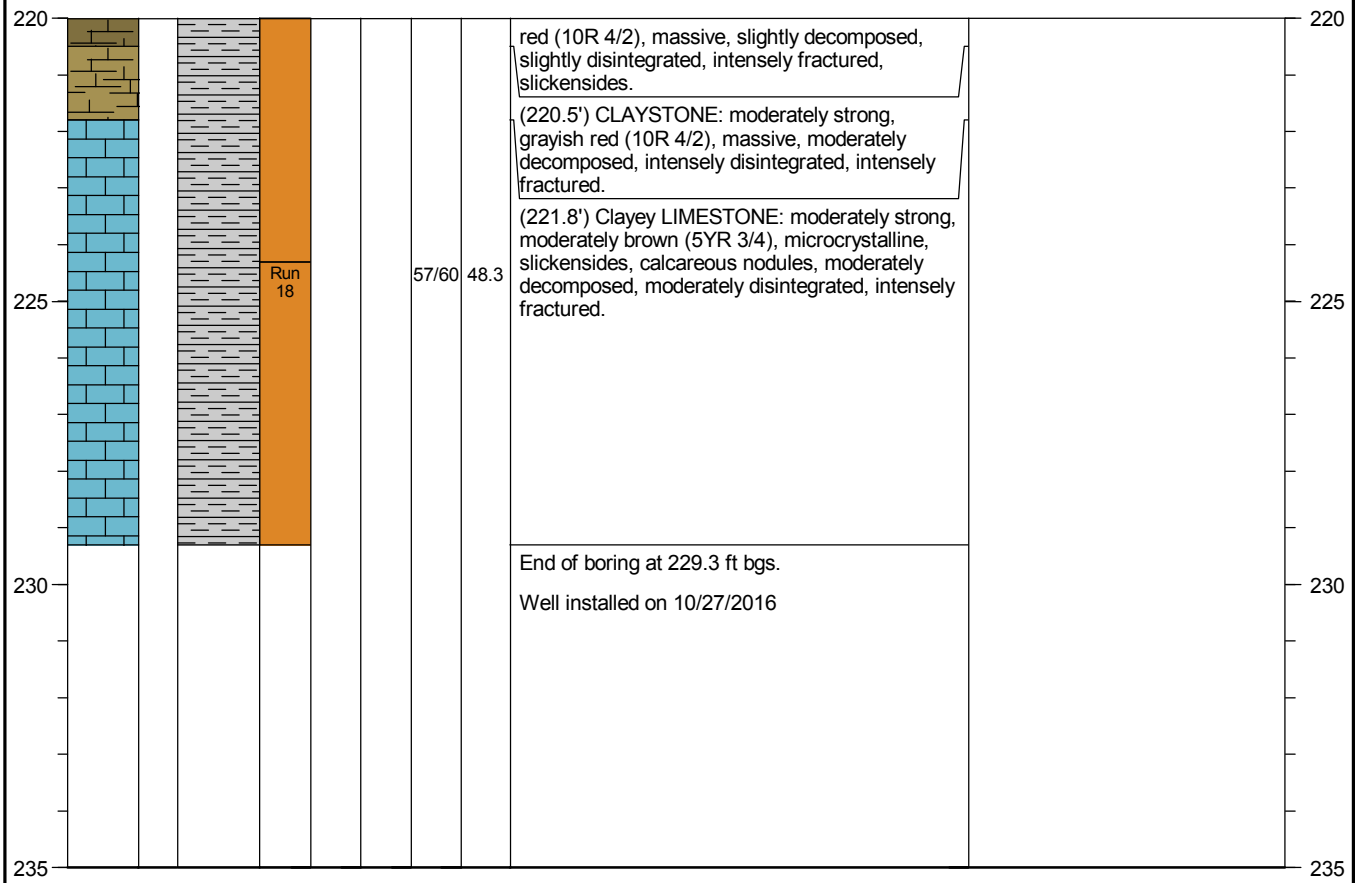
NOTES:
1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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Client: American Electric Power
Project: CHE8259
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WELL LOG
Well No. MW-17
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Drilling Method:	Rotary	DTW After Drilling (ft):	107.8	Riser Material:	Sch 40 PVC
Drilling Equipment:	Diedrich D-120	Ground Surface Elev. (ft):	727.725	Screen Material:	Sch 40 PVC Slotted
Driller:	Zach Racer	Top of Casing Elev. (ft):	730.638	Seal Material(s):	Bentonite Pellets and Grout
Logged By:	Doug Mateas	Location (X,Y):	N 349,980.08 E 2,102,247.86	Filter Pack:	Global #5 Sand



NOTES:
1) Coordinates are in Gavin Plant Coordinate System, which varies ±3 ft. from State Plane Ohio South NAD27. Elevation in NGVD1929.
2) "DTW after Drilling" refers to steady-state water level in open borehole (prior to well installation).
3) Geophysical logging used to interpret best depth interval to set the well screen.
4) Monitoring well screened in Morgantown Sandstone.

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2022-14

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

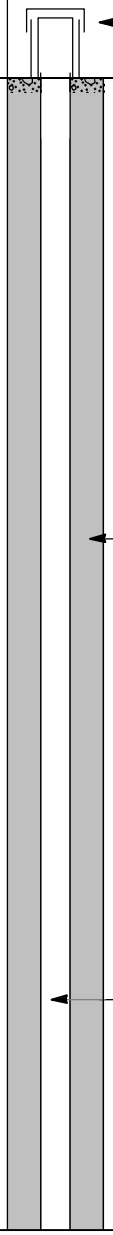
DATE STARTED: 7/23/2022
DATE COMPLETED: 7/24/2022
DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring
LOGGED BY: J. Maag
CHECKED BY: A. Harford
NOTES: 6" Steel Stickup Protective Casing. Screen location based on results of downhole geophysical survey.

TOTAL DEPTH: 184 feet bgs
DIAMETER: 6 inches
GROUND ELEVATION: 740.42
PVC ELEVATION: 743.04
NORTHING: 345975.5035
EASTING: 2070349.795

WELL DEVELOPMENT
METHOD(S): Mega Monsoon & Bailer
DATE STARTED: 9/7/2022
DATE ENDED: 11/6/2022
DTW AT START: 163.63 feet bgs
DTW AT END: 179.38 feet bgs
VOLUME PURGED: 15.1 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						Yellowish Brown, SANDY SILT, fine grained sand, non-plastic, soft, wet. (1.0)
5	735	SC	84			Yellowish Brown, FINE SAND, subrounded few sand cobbles, some mica, well sorted, very loose, dry. (7.0)
10	730	SC	12			Gray, FINE SANDY SILT, mostly mica, non-plastic, dense, wet. (17.0)
15	725					
20	720	HQ	120	13.3		Gray, CLAYSTONE, some mica, massive, slightly weathered, very weak. (19.0)
25	715					Gray, CLAY SHALE, very thinly laminated, intensely weathered, very weak, wet.

WELL DIAGRAM



SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Sandy Silt
- Well-graded Sand
- Claystone Interbedded Shale
- Shale
- Limestone
- Sandstone

ACRONYM LEGEND
amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						Gray, CLAY SHALE, very thinly laminated, intensely weathered, very weak, wet. *(continued)*
						28.5
30	710	HQ	120	0		Gray, CLAY SHALE, very thinly laminated, intensely weathered-disintegrated, very weak, dry.
35	705					37.0
40	700	HQ	78	5.1		Gray, CLAY SHALE, very thinly laminated, moderately weathered, weak, wet.
45	695					47.0
						Gray, LIMESTONE, very fine grained, massive, intensely weathered, moderate strength, wet.
						48.0
50	690					Gray, CLAY SHALE, little mica and pyrite, very thinly laminated, very weathered, weak, wet.
						51.0
		HQ	48			Red, CLAY SHALE, orange, greenish-gray, purple, very thinly laminated, very weathered, weak, wet.

WELL DIAGRAM: Bentonite Grout (0 to 152 feet bgs)

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Sandy Silt
- Well-graded Sand
- Claystone Interbedded Shale
- Shale
- Limestone
- Sandstone

ACRONYM LEGEND

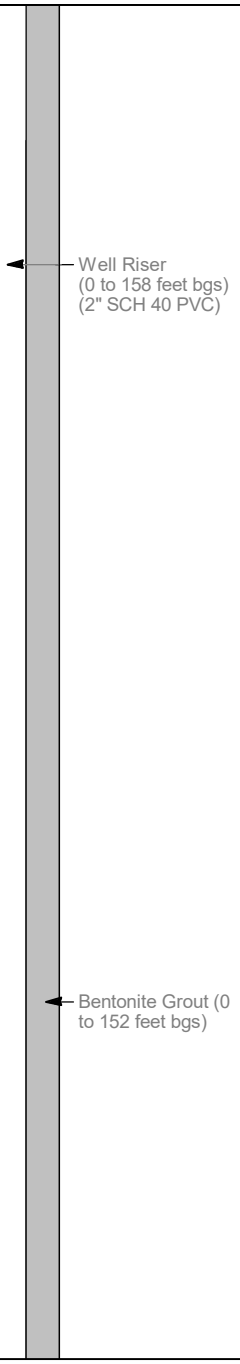
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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
55	685					Red, CLAY SHALE, orange, greenish-gray, purple, very thinly laminated, very weathered, weak, wet. *(continued)*
60	680	HQ	60	6.7		60.0 Blue Gray, SANDSTONE, Fine grained, massive, little pyrite, slightly weathered, fracture from 60.5-62' (60 degrees), strong, wet. 62.5
65	675					Blue Gray, CLAYSTONE, very thinly laminated, little mica, slightly weathered, weak, wet.
70	670	HQ	96	20.8		73.0 Blue Gray, SANDSTONE, fine grained, little mica, massive, fresh, 85 degree fracture (73.5' - 74.5'), strong, wet.
75	665					77.0
80	660	HQ	114	44.7		Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet.

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Sandy Silt
- Well-graded Sand
- Claystone Interbedded Shale
- Shale
- Limestone
- Sandstone

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
85	655						
90	650						
95	645	HQ	240	47.1		Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet. *(continued)*	
100	640						← Bentonite Grout (0 to 152 feet bgs)
105	635						
110	630						

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

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- Well-graded Sand
- Claystone Interbedded Shale
- Shale
- Limestone
- Sandstone

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	625	HQ	156	57.7		Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet. *(continued)*	← Bentonite Grout (0 to 152 feet bgs)
120	620						
125	615						
130	610						
135	605	HQ	234	48.3			
140	600						

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Sandy Silt
- Well-graded Sand
- Claystone Interbedded Shale
- Shale
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ACRONYM LEGEND

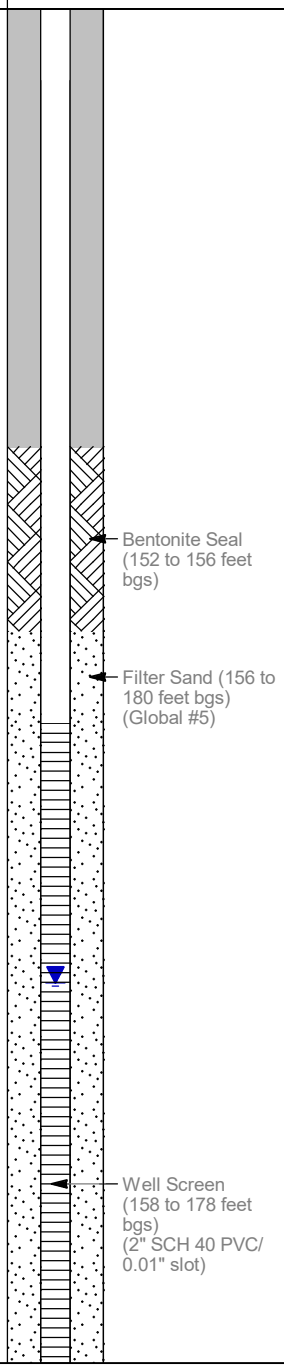
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Client: Gavin Power, LLC
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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
145	595					
						Red, CLAYSTONE, greenish gray, massive, trace mica, slightly weathered, moderate strength, wet. *(continued)*
150	590					
155	585					155.0
		HQ	240	48.3		Blue Gray, SANDSTONE, fine grained, some mica, massive, fresh, strong, wet.
160	580					
						164.5
165	575					
						Red, CLAYSTONE, purple, bluish gray, massive, fresh, 60 degree fracture at 173', 90 degree (4") fracture at 175', strong, wet.
170	570					

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Sandy Silt
- Well-graded Sand
- Claystone Interbedded Shale
- Shale
- Limestone
- Sandstone

ACRONYM LEGEND

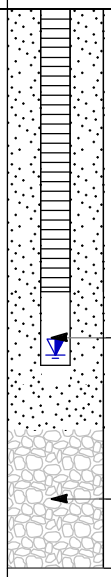
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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
175	565	HQ	96	61.5		Red, CLAYSTONE, purple, bluish gray, massive, fresh, 60 degree fracture at 173', 90 degree (4") fracture at 175', strong, wet. *(continued)*
						176.0
						Red, CLAYSTONE, purple, bluish gray, massive, intensely weathered, strong, wet.
						177.0
180	560	HQ	84	15.5		CLAYSTONE, purple, bluish-gray, orange, massive, slightly weathered, moderate strength, wet.
						180.5
						Blue Gray, CLAYSTONE, purple, orange, massive, intensely weathered, very weak, wet.
						183.5
						184.0 Light Gray, CLAYSTONE, intensely disintegrated, dry.
						Bottom of Boring @ 184.00 feet bgs
185	555					
190	550					
195	545					
200	540					

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Sandy Silt
- Well-graded Sand
- Claystone Interbedded Shale
- Shale
- Limestone
- Sandstone

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2022-15

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DATE STARTED: 8/5/2022
DATE COMPLETED: 8/5/2022
DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring
LOGGED BY: L. Stodden
CHECKED BY: A. Harford
NOTES: 6" Steel Stickup Protective Casing. 2016-08 replacement well.

TOTAL DEPTH: 195 feet bgs
DIAMETER: 6 inches
GROUND ELEVATION: 729.55
PVC ELEVATION: 732.09
NORTHING: 352451.0853
EASTING: 2068926.25

WELL DEVELOPMENT
METHOD(S): Mega Monsoon, Wattera, Bailer
DATE STARTED: 9/7/2022
DATE ENDED: 11/6/2022
DTW AT START: 22.16 feet bgs
DTW AT END: 190.66 feet bgs
VOLUME PURGED: 25.4 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
		SC	23			Light Brown, CLAY, some silt and fine sand, roots, orange yellow mottling, poorly sorted, medium plasticity, dry to moist.
						3.0
5	725	SC	36			Light Brown, CLAY, some silt and fine to medium sand, red to orange yellow mottling, poorly sorted, medium plasticity, dry to moist.
						7.0
10	720	SC	48			Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.
						11.5
						12.0 Gray Brown, CLAY, some silt and fine to medium sand, trace gravel, 0.5"-1" claystone fragments, thin medium to coarse dark gray sandy lenses, orange yellow mottling, poorly sorted, medium plasticity, dry to moist.
15	715	SC	40			Gray Brown, CLAY, some silt and fine to medium sand, trace gravel, 0.5"-1" claystone fragments, thin medium to coarse dark gray sandy lenses, orange yellow mottling, poorly sorted, medium plasticity, dry to moist.
						17.0
		SC	36			Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.
						19.5
20	710					20.0 Dark Gray To Black, FINE TO MEDIUM SAND, some silt.

WELL DIAGRAM
Concrete Pad and 6" Steel Stickup Protective Casing

SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Clay
- Poorly-Graded Sand
- Claystone Interbedded Shale
- Siltstone
- Sandstone

ACRONYM LEGEND
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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						moderately sorted, loose, dry to moist.	
		SC	48			Brown To Red Brown, CLAY, some silt and fine sand, red bed layer at 21.5' to 22', varving, poorly sorted, low plasticity, dry. *(continued)*	
						24.0	
25	705	SC	36			Brown To Light Brown, CLAY, some silt and fine sand, mechanically crushed, varving, poorly sorted, low plasticity, dry.	
						27.0	
		SC	36			Red, CLAY, some subangular silt and fine sand, (1-3" diameter), gray-brown, gray shale rock fragments throughout, moderate gravel, yellow orange mottling, poorly sorted, medium plasticity, dense, moist.	
30	700					30.0	
		SC	55			Red Brown, CLAY, some subangular silt and fine sand, (1-3" diameter), gray shale rock fragments throughout, moderate gravel, yellow orange mottling, poorly sorted, medium plasticity, dense, moist.	
35	695					35.0	
		SC	24			Red Brown, CLAY, some subangular silt and fine sand, (1-3" diameter), gray shale and tan claystone rock fragments throughout, moderate gravel, yellow orange mottling, poorly sorted, medium plasticity, moist.	
						37.0	
40	690	HQ	28	92.9		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.	
						42.0	
						Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.	

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Clay
- Poorly-Graded Sand
- Claystone Interbedded Shale
- Siltstone
- Sandstone

ACRONYM LEGEND

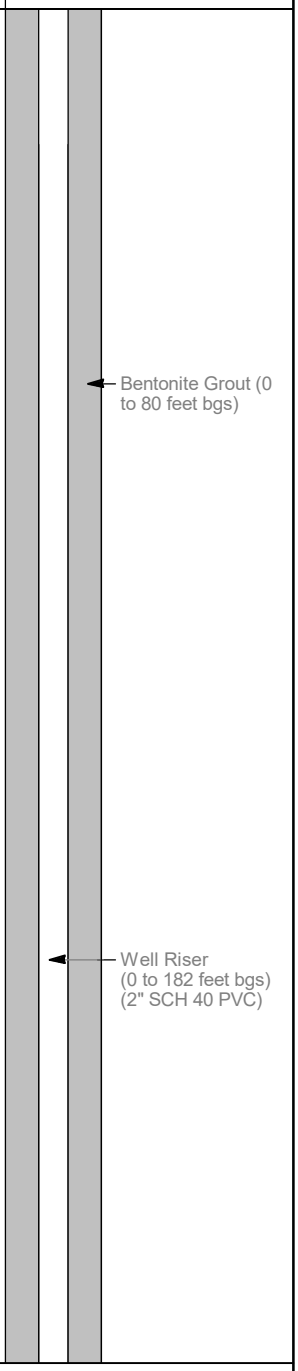
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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
45	685	HQ	38	90.8		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation. *(continued)*
						47.0
50	680	HQ	38	78.9		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.
						52.0
55	675	HQ	36	63.9		Red Brown, CLAYSTONE, with clasts, gray-blue, few blue-gray fine grained sandstone clasts within claystone, thin layering in claystone, exterior moderately decomposed, moderate natural fractures, moderate cementation.
						57.0
						Dark Gray, CLAYSTONE, interbedded light gray to dark gray beds, flame structures, transitional zone, high cementation, hard.
						57.8
60	670	HQ	44	93.2		SILTSTONE, little rounded clasts, (<0.5" diameter), fine gravel, blue-olive-gray, graywacke, moderate natural fractures, yellow orange mottling, oxidized veins, moderate cementation.
						62.0
65	665	HQ	20	55		SILTSTONE, little rounded clasts, (<0.5" diameter), fine gravel, blue-olive-gray, graywacke, moderate natural fractures, yellow -orange to red-purple mottling, low cementation.

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Clay
- Poorly-Graded Sand
- Claystone Interbedded Shale
- Siltstone
- Sandstone

ACRONYM LEGEND

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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						SILTSTONE, little rounded clasts, (<0.5" diameter), fine gravel, blue-olive-gray, graywacke, moderate natural fractures, yellow -orange to red-purple mottling, low cementation. *(continued)*	
						69.0	
70	660	HQ	0			No recovery, washed out and fall out.	
						72.0	
75	655	HQ	40	76.3		Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions , tan-red bed from 76'-77', yellow orange mottling, poorly sorted, medium plasticity, moist.	
						77.0	
80	650	HQ	0			No Recovery.	
85	645	HQ	27	51.9		85.0	
						Red Brown, CLAY, some silt and fine to medium sand, 82'-85' washout/no recovery, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist.	
						85.5	
						Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard.	
						87.0	
90	640	HQ	11	100		No Recovery.	Well Riser

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Clay
- Poorly-Graded Sand
- Claystone Interbedded Shale
- Siltstone
- Sandstone

ACRONYM LEGEND

amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

ERM
1 Beacon Street: 5th Floor
Boston, MA 02108
Telephone: + 1 (617) 646-7800

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						91.0 No Recovery. *(continued)*	(0 to 182 feet bgs) (2" SCH 40 PVC)
						Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard. 92.0	
		HQ	48	48.96		Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard. 94.0	
95	635					Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist. 95.5	
						Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, dispersed calcite crystallization, fine grained thin crossbedding throughout, high cementation, hard. 97.0	
100	630	HQ	40	73.5		Olive, SANDSTONE, blue-gray, calcareous, fine-medium grain sandstone, decrease in carbonate/increase in sand, fine to medium grained thin crossbedding throughout, high cementation, hard. 102.0	
105	625	HQ	50	56		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium, decrease in carbonate/increase in sand, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard. 107.0	
110	620	HQ	0			No recovery. 112.0	
						Red Brown, CLAY, some silt and fine to medium sand, blue gray clay inclusions, yellow orange mottling, poorly sorted, medium plasticity, moist. 114.0	

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
115	615	HQ	41	60.98		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium grain, decrease in carbonate/increase in sand, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard. *(continued)*
						117.0
120	610	HQ	51	68.6		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium grain, Thick interbedding (Red claystone from 118.5' to 120.5'), carbonate veins, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard.
						122.0
125	605	HQ	34	79.4		Olive, SANDSTONE, with claystone, blue-gray, calcareous, fine-medium grain sandstone, thick interbedding (Red claystone from 122 to 122.5'), carbonate veins, fine to medium grained thin crossbedding throughout, red brown claystone, high cementation, hard.
						125.0
		HQ	43	47.7		Red Brown, CLAYSTONE, interbedded with fine sand, dark brown, highly decomposed/ weathered, medium cementation.
						126.5
						Olive, SANDSTONE, blue-gray, calcareous, thin layering, increasing sand content with depth, fine-medium grained crossbedding, pyrite nodules, moderate fracturing, medium cementation.
						129.0
130	600	HQ	45	48.9		Olive, SANDSTONE, with claystone, blue-gray, calcareous, thin layering, increasing carbonate content with depth, fine-medium grained crossbedding, pyrite nodules, (Red claystone from 133' to 134'), moderate fracturing, medium cementation.
						134.0
135	595	HQ	32	32.8		Red Brown, CLAYSTONE, rubble zone from 136' to 137' with increased sand content, yellow orange to purple mottling, low cementation.
						137.0
						No Recovery.

WELL DIAGRAM: Bentonite Chips (80 to 176 feet bgs)

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
140	590	HQ	0			No Recovery. *(continued)*
						142.0
145	585	HQ	35	84.3		Red Brown, CLAYSTONE, gray-brown, moderate natural fracturing, yellow-tan-orange mottling, moderate cementation, hard.
						147.0
150	580	HQ	60	90		Red Brown, CLAYSTONE, gray-brown, moderate natural fracturing, thin fine-medium grained sandstone crossbeds, yellow-tan-orange mottling, moderate cementation, hard.
						152.0
155	575	HQ	40	62.5		Red Brown, CLAYSTONE, gray-brown, moderate natural fracturing, thin fine-medium grained sandstone crossbeds, blue-gray sandstone clasts, yellow tan orange mottling, moderate cementation, hard.
						157.0
160	570					No Recovery.

WELL DIAGRAM

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

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- Siltstone
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ACRONYM LEGEND

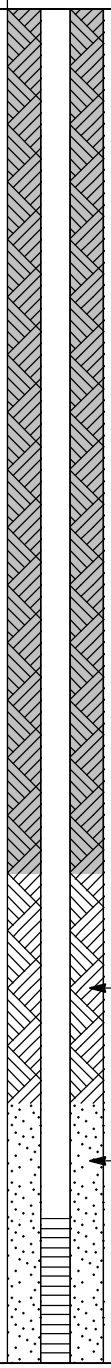
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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
165	565	HQ	0			No Recovery. *(continued)*
						167.0
170	560	HQ	46	91.3		Red Brown, CLAYSTONE, moderate natural fracturing, thin fine-medium grained sand and silt lenses, yellow orange to purple mottling, moderate cementation, moderately decomposed/weathered.
						172.0
175	555	HQ	28	91.1		Red Brown, CLAYSTONE, moderate natural fracturing, thin fine-medium grained sand and silt lenses, yellow orange to purple mottling, moderate cementation, moderately decomposed/weathered.
						177.0
180	550	HQ	60	60		Red Brown, CLAYSTONE, moderate natural fracturing, thin fine-medium grained sand and silt lenses, yellow orange to purple mottling, moderate cementation, moderately decomposed/weathered.
						182.0
						Olive, SANDSTONE, blue-gray, calcareous, thin layering (brittle), increasing clay content with depth, very fine-fine grained crossbedding, moderate fracturing, medium cementation. [Cow Run Sandstone]

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

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Client: Gavin Power, LLC
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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	545	HQ	43	74.4		Olive, SANDSTONE, blue-gray, calcareous, thin layering (brittle), increasing clay content with depth, very fine-fine grained crossbedding, moderate fracturing, medium cementation. [Cow Run Sandstone] *(continued)*	Well Screen (182 to 192 feet bgs) (2" SCH 40 PVC/ 0.01" slot)
						189.0	
190	540	HQ	42	55.95		Olive, SANDSTONE, blue-gray, calcareous, thin layering (brittle), increasing clay content with depth, very fine-fine grained crossbedding, moderate fracturing, medium cementation. [Cow Run Sandstone]	Sump (2" SCH 40 PVC/2' long) (192 to 194 feet bgs)
195	535					195.0	
						Bottom of Boring @ 195.00 feet bgs	
200	530						
205	525						

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2022-16

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DATE STARTED: 8/7/2022
DATE COMPLETED: 8/9/2022
DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring
LOGGED BY: L. Stodden
CHECKED BY: A. Harford
NOTES: 6" Steel Stickup Protective Casing. 2019-09 replacement well.

TOTAL DEPTH: 189 feet bgs
DIAMETER: 6 inches
GROUND ELEVATION: 736.19
PVC ELEVATION: 738.37
NORTHING: 353206.6888
EASTING: 2064228.927

WELL DEVELOPMENT
METHOD(S): Mega Monsoon & Bailer
DATE STARTED: 9/7/2022
DATE ENDED: 11/6/2022
DTW AT START: 124.95 feet bgs
DTW AT END: 187.0 feet bgs
VOLUME PURGED: 12.25 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
5	731	SC	84			Brown, CLAYEY SILT, with fine to medium sand, tan, trace organic lenses, gray mottling, overburden, poorly sorted, low plasticity, damp.
7.0						
10	726	SC	120			Brown, CLAY, with fine sand and silt, tan, little organic lenses, gray mottling, overburden, medium, moderate plasticity, denser with depth, damp.
15	721					
17.0						
		SC	12			Brown, CLAY, with fine sand and silt, tan, little organic lenses, gray mottling, overburden, medium, moderate plasticity, dense, damp.
18.0						
20	716					Red Brown, CLAYSTONE, with clasts of fine grained sandstone, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation.

WELL DIAGRAM
Concrete Pad and 6" Steel Stickup Protective Casing

SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Silt
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- Claystone Interbedded Shale
- Sandstone
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- Shale

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	48	41.7		Red Brown, CLAYSTONE, with clasts of fine grained sandstone, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation. *(continued)*	
						22.0	
		HQ	24	0		Brown, SANDSTONE, tan, thin crossbedding throughout, lithics and micas, very fine to fine grained, orange-dark brown oxidation along natural fractures, rubble zone, medium cementation.	
						24.0	
25	711	HQ	36	50		Brown, SANDSTONE, tan, thin crossbedding throughout, lithics and micas, very fine to fine grained, orange-dark brown oxidation along natural fractures, rubble zone, medium cementation.	
						25.5	
						Red Brown, CLAYSTONE, fine grain tan sandstone clasts, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation.	
						27.0	
		HQ	36	51.4		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, Moderately decomposed, yellow orange mottling, medium cementation.	
						29.0	
30	706					Olive, SILTSTONE, with clay, blue-gray, Moderately decomposed, fissile, medium cementation.	
						30.0	
						Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, moderately decomposed, yellow orange mottling, medium cementation.	
						31.0	
		HQ	34	89.7		Olive, SHALE, some silt, blue-gray, moderately decomposed, fissile, red claystone clasts, medium cementation.	
						32.0	
						Red Brown, CLAYSTONE, fine grained olive-blue-gray sandstone clasts, moderately decomposed, yellow orange mottling, medium cementation.	
						33.0	
35	701	HQ	48	76		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, moderately decomposed (increased weathering with depth), (olive/blue-gray sandstone bed from 34.5' to 35'), yellow orange mottling, medium cementation.	
						38.0	
40	696					No Recovery.	

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Silt
- Clay
- Claystone Interbedded Shale
- Sandstone
- Siltstone
- Shale

ACRONYM LEGEND

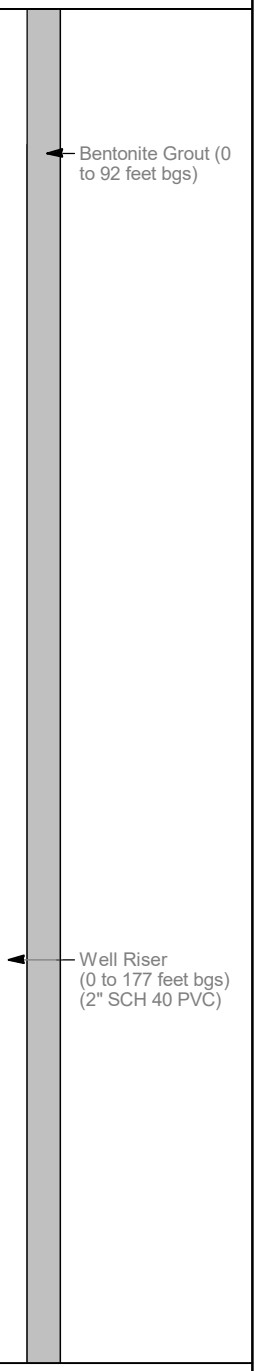
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Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
45	691	HQ	0			No Recovery. *(continued)*
50	686					53.0
		HQ	48	33.3		Olive, SHALE, some silt, blue-gray, highly decomposed, fissile, medium cementation. 54.0
55	681					Light Gray, CLAYSTONE, with red brown claystone clasts, highly decomposed, yellow orange to purple mottling, low cementation. 55.0
						Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, highly decomposed to appear as more clay than claystone, yellow orange mottling, medium cementation. 57.0
60	676					No recovery.
		HQ	0			
65	671					

WELL DIAGRAM



SAMPLE TYPE

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						No recovery. *(continued)*	
70	666					70.0	
		HQ	44	77.3		Red Brown, CLAYSTONE, fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, yellow orange to purple mottling, low cementation.	
						74.0	
75	661					Red Brown, CLAYSTONE, fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, yellow orange to purple mottling, low cementation.	
		HQ	36	52.8		75.5	
						Olive, SANDSTONE, blue-gray, fine-medium grained, micaceous, thin carbonate vein, moderately fractured, high cementation, hard.	
						77.0	
80	656	HQ	60	81.7		Olive, SANDSTONE, with silty clay, blue-gray, increasing silt-clay with depth, fine-medium grained, micaceous, (pyritic at 80-82ft), thin carbonate nodules, fine grained cross-beds, (fissile with depth), moderately fractured, high cementation, hard.	
						82.0	
						Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, low cementation.	
		HQ	46	70.7		84.0	
85	651					Olive, SANDSTONE, blue-gray, fine-medium grained, micaceous, pyritic, thin carbonate nodules, fine grained cross-beds, (fissile with depth), moderately fractured, high cementation, hard.	
						86.0	
		HQ	46	22.8		Olive, SANDSTONE, blue-gray, fine-medium grained, micaceous, pyritic, thin carbonate nodules, fin-medium grained cross-beds, highly fractured, high cementation, hard.	Well Riser (0 to 177 feet bgs) (2" SCH 40 PVC)
90	646					90.0	

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						91.0 Olive, SANDSTONE, blue-gray, fine grained, micaceous, pyritic, fine grained cross-beds, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard. *(continued)*
		HQ	30	48.3		Red Brown, CLAYSTONE, with fine grained olive-blue-gray sandstone clasts, highly decomposed, highly fractured, low cementation.
						93.0
95	641	HQ	24	41.7		Red Brown, CLAYSTONE, highly decomposed to appear as more clay than claystone, yellow orange mottling, low cementation.
						96.0
						Red Brown, CLAYSTONE, highly decomposed to appear as more clay than claystone, yellow orange mottling, low cementation.
						97.0
		HQ	45	54.4		Olive, SANDSTONE, blue-gray, fine grained, micaceous, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard.
100	636					
						101.0
		HQ	42	57.1		Olive, SANDSTONE, blue-gray, fine grained, micaceous, interbedded fine grained cross-beds and fissile silty clay beds, moderately fractured, moderate silt-clay content, high cementation, hard.
105	631					
						105.0
		HQ	24	37.5		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, pyritic, fine to medium grained cross beds, moderately fractured, high cementation, hard.
						107.0
		HQ	45	84.4		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, pyritic, fine to medium grained cross-beds transition to fissile silt-clay layers with depth, moderately fractured, moderate silt-clay content, high cementation, hard.
110	626					
						112.0
						Olive, SANDSTONE, blue-gray, fine grained, micaceous, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard.

WELL DIAGRAM

Bentonite Chips (92 to 122 feet bgs)

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
115	621	HQ	34	89.7		Olive, SANDSTONE, blue-gray, fine grained, micaceous, fissile layering, moderately fractured, moderate silt-clay content, high cementation, hard. *(continued)*
						117.0
		HQ	36	37.5		Olive, SHALE, some silt to fine sand, blue-gray, highly decomposed, fissile, pyritic, thin carbonate nodules (interbedded red claystone from 119.5-120' Bgs), medium cementation.
120	616					120.0
						Olive, SHALE, some silt to fine sand, medium cementation, highly decomposed, fissile, pyritic, thin carbonate nodules (interbedded red claystone from 119.5' to 120').
						121.0
		HQ	48	75		Gray, SILTSTONE, transitional zone, carbonate nodules (0.2-0.5" diameter), medium cementation.
						123.5
125	611					Red Brown, CLAYSTONE, highly decomposed, yellow orange to purple mottling, medium cementation.
						125.0
		HQ	38	56.6		Red Brown, CLAYSTONE, highly decomposed, moderately fractured, yellow orange to purple mottling, medium cementation.
130	606					130.0
		HQ	60	57.5		Red Brown, CLAYSTONE, with beds of olive-blue-gray silty claystone, highly decomposed, moderate fracturing, rubble zones present at 130-131' bgs and 136-138' bgs, yellow orange to purple mottling, low cementation.
135	601					

WELL DIAGRAM

SAMPLE TYPE

- Sonic Drilling (SC)
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						138.0
140	596	HQ	23	95.7		Red Brown, CLAYSTONE, with clasts, tan claystone, highly decomposed, yellow orange to purple mottling, low cementation.
						143.0
						Red Brown, CLAYSTONE, with clasts, tan claystone, moderately decomposed, yellow orange to purple mottling, low cementation.
						144.5
145	591	HQ	47	90.4		Olive, SHALE, some some silt to fine sand, blue-gray, thin carbonate veins, alternating light brown fine grained sand and dark gray silt beds, medium cementation.
						148.0
						148.5 Red Brown, CLAYSTONE, with clasts, tan claystone, moderately decomposed, yellow orange to purple mottling, low cementation.
						Olive, SHALE, some some silt to fine sand, blue-gray, thin carbonate veins, alternating light brown fine grained sand and dark gray silt beds, medium
						149.5 cementation.
150	586	HQ	45	57.8		Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, medium cementation.
						153.0
155	581	HQ	40	16.3		Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, medium cementation.
						158.0
160	576	HQ	40	67.5		Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, yellow orange-red purple mottling, medium cementation.

WELL DIAGRAM: ← Bentonite Grout (122 to 171 feet bgs)

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Silt
- Clay
- Claystone Interbedded Shale
- Sandstone
- Siltstone
- Shale

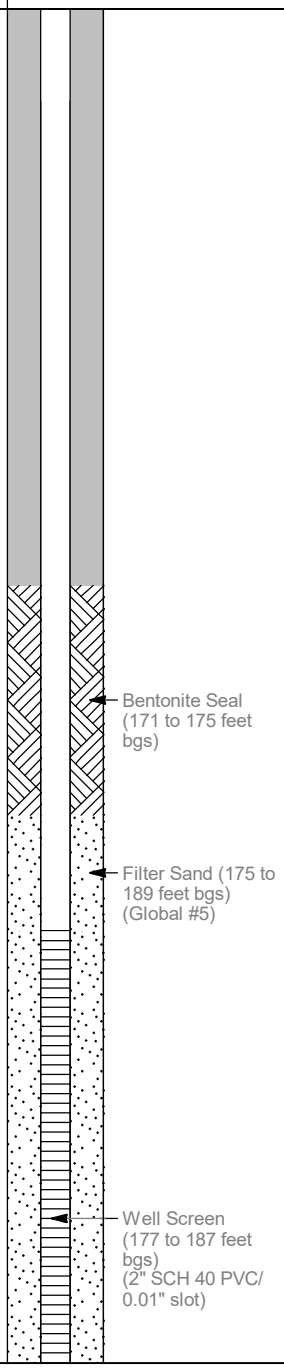
ACRONYM LEGEND

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NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

ERM
1 Beacon Street: 5th Floor
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Telephone: + 1 (617) 646-7800

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, yellow orange-red purple mottling, medium cementation. *(continued)*
						163.0
165	571	HQ	36	79.2		Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, yellow orange-red purple mottling, medium cementation.
						168.0
						Gray, SILTSTONE, moderate carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, medium cementation.
170	566	HQ	51	54.9		170.0
						Olive, SILTSTONE, some fine sand, blue-gray, little carbonate nodules (0.2-0.5" diameter), moderately decomposed, moderately fractured, medium cementation.
						173.0
175	561	HQ	24	100		Olive, SANDSTONE, some silt, blue-gray, fine grained, micaceous, little carbonate nodules (0.2-0.5" diameter), increasing sand content with depth, natural fracture (165-170 degrees), high cementation, hard. [Cow Run Sandstone]
						177.0
180	556	HQ	46	95.7		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, little fine grained cross-beds, thin carbonate veins (<0.5" diameter) carbonate nodules, moderately fractured (165-170 degrees), high cementation, hard. [Cow Run Sandstone]
						182.0
						Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, fine to medium grained cross-beds, moderately fractured (155-165 degrees), high cementation, hard. [Cow Run Sandstone]



SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Silt
- Clay
- Claystone Interbedded Shale
- Sandstone
- Siltstone
- Shale

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NM = not measured
NR = no recovery
PVC = polyvinyl chloride

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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	551	HQ	52	78.8		Olive, SANDSTONE, blue-gray, fine to medium grained, micaceous, fine to medium grained cross-beds, moderately fractured (155-165 degrees), high cementation, hard. [Cow Run Sandstone] *(continued)*	
						189.0	Sump (2" SCH 40 PVC/2' long) (187 to 189 feet bgs)
190	546					*Bottom of Boring @ 189.00 feet bgs*	
195	541						
200	536						
205	531						

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Silt
- Clay
- Claystone Interbedded Shale
- Sandstone
- Siltstone
- Shale

ACRONYM LEGEND

amsl = above mean sea level
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2022-17

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DATE STARTED: 9/13/2022
DATE COMPLETED:
DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHODS: Wireline Rock Coring
LOGGED BY: J. Maag
CHECKED BY: A. Harford
NOTES: 6" Steel Stickup Protective Casing. 2018-01 replacement well.

TOTAL DEPTH: 258 feet bgs
DIAMETER: 6 inches
GROUND ELEVATION: 733.39
PVC ELEVATION: 735.83
NORTHING: 345353.3472
EASTING: 2072913.835

WELL DEVELOPMENT
METHOD(S): Wattera
DATE STARTED: 10/5/2022
DATE ENDED: 10/5/2022
DTW AT START: 78.96 feet bgs
DTW AT END: 248.26 feet bgs
VOLUME PURGED: 36 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						Gray Brown, SILT, soft, orange mottling, with coarse black shale pieces, low plasticity, wet.
						1.0
						Gray Brown, SILTSTONE, little mica, dark gray, orange, massive, slightly disintegrated, very weathered, with fine black shale pieces, very weak, dry.
						3.0
		HQ	84			
5	728					Dark Gray, SILTSTONE, interbedded shale, some mica, massive, weak, very weathered, wet.
						6.0
10	723	HQ	120	62.5		Gray Brown, CLAYSTONE, trace mica, orange, yellow. black, gray, massive, slightly weathered, very weak, wet.
15	718					15.0
						Yellow Brown, FINE SILTY SAND, with coarse gravel, orange mottling, some mica, trace organic matter (roots).
						17.0
20	713					Yellow Brown, SILTSTONE, sandy, orange-red-gray mottling, trace organic matter (roots), little mica, massive, very weathered, very weak, wet.

WELL DIAGRAM
Concrete Pad and 6" Steel Stickup Protective Casing

SAMPLE TYPE
HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
Silt
Siltstone
Claystone Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND
amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

ERM
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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Yellow Brown, SILTSTONE, sandy, orange-red-gray mottling, trace organic matter (roots), little mica, massive, very weathered, very weak, wet. *(continued)*	
25	708					26.0	
		HQ	204	0		Dark Gray, SILTSTONE, little mica, orange-red-gray mottling, roots, massive, very weathered, very weak, wet.	
						29.0	
30	703					Gray, SHALE, very thinly laminated, moderately weathered, moderately disintegrated, moderately strong, dry.	
35	698						← Bentonite Grout (0 to 72 feet bgs)
						37.0	
40	693					Gray, SHALE, very thinly laminated, moderately weathered, moderately strong, wet.	

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt | Siltstone | Claystone Interbedded Shale
Silty Sand | Shale | Limestone

ACRONYM LEGEND

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	688	HQ	168	44.6		Gray, SHALE, very thinly laminated, moderately weathered, moderately strong, wet. *(continued)*	
50	683						
55	678					55.5	
60	673					Gray, SILTSTONE, massive, slightly weathered, moderately strong, wet.	
65	668						

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
		HQ	54	59.3		Gray, SILTSTONE, massive, slightly weathered, moderately strong, wet. *(continued)*
70	663					
						72.5 — Gray, LIMESTONE, fine grained veins of quartz and mica, very weathered, strong, wet. — 73.5
75	658					Bluish Gray, SANDSTONE, few mica, trace pyrite, massive, fine grained, strong, wet. — 76.5
						Bluish Gray, SHALE, few mica, purple-yellow, very thinly laminated, weak, moderately weathered, wet. — 79.5
80	653					Light Bluish Gray, SANDSTONE, few mica, fine grained, massive, strong, wet. — 83.0
85	648	HQ	228	55.3		Bluish Gray, CLAYSTONE, interbedded siltstone, purple-yellow, little mica, massive, weak, moderately weathered, wet. — 88.0
90	643					Red, CLAYSTONE, interbedded siltstone, purple-yellow blue-gray, little mica, massive, weak, moderately weathered, wet.

WELL DIAGRAM

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt | Siltstone | Claystone Interbedded Shale
Silty Sand | Shale | Limestone

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
95	638					Red, CLAYSTONE, interbedded siltstone, purple-yellow blue-gray, little mica, massive, weak, moderately weathered, wet. *(continued)*	Bentonite Chips (72 to 114 feet bgs)
						97.0	
100	633					Bluish Gray, SILTSTONE, interbedded shale, purple-red, some mica, very thinly laminated, slightly weathered, moderately strong, wet.	
						101.5	
105	628	HQ	228	67.1		Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet.	
110	623						
						112.5	
						Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet.	

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

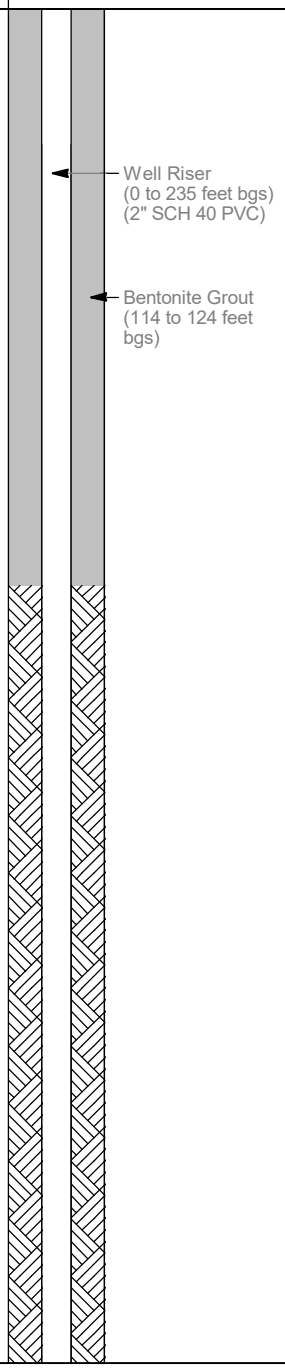
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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
115	618					
120	613					
125	608	HQ	162	66		Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet. *(continued)*
130	603					
135	598					

WELL DIAGRAM



SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone
Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

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Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	593					Red, CLAYSTONE, purple-red, blue gray, yellow, massive, weak, slightly weathered, wet. *(continued)*	
145	588	HQ	120	72.5			
						148.5	
150	583					Bluish Gray, SANDSTONE, few mica, purple-red, fine grained, massive, strong, wet.	
						150.5	
155	578					Red, CLAYSTONE, trace mica, purple-red, massive, slightly weathered, moderately strong, wet.	
160	573						

Bentonite Chips (124 to 178 feet bgs)

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone
Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						161.5	
						Bluish Gray, SILTSTONE, interbedded shale, purplish-red staining, trace pyrite, few mica, very thinly laminated, moderately weathered, moderately strong, wet.	
165	568						
						166.5	
		HQ	216	58.3		Red, CLAYSTONE, purple-red, bluish-gray, massive, slightly weathered, moderately strong, wet.	
						169.5	
170	563						
						Bluish Gray, SILTSTONE, interbedded sandstone, fine grained, little pyrite, trace mica, massive, slightly weathered, moderately strong, wet.	
175	558						
						177.0	
180	553					Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet.	

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
185	548	HQ	186	63.98		Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet. *(continued)*	
190	543						
195	538						
200	533						
205	528	HQ	72	37.5			

Bentonite Grout (178 to 229)

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

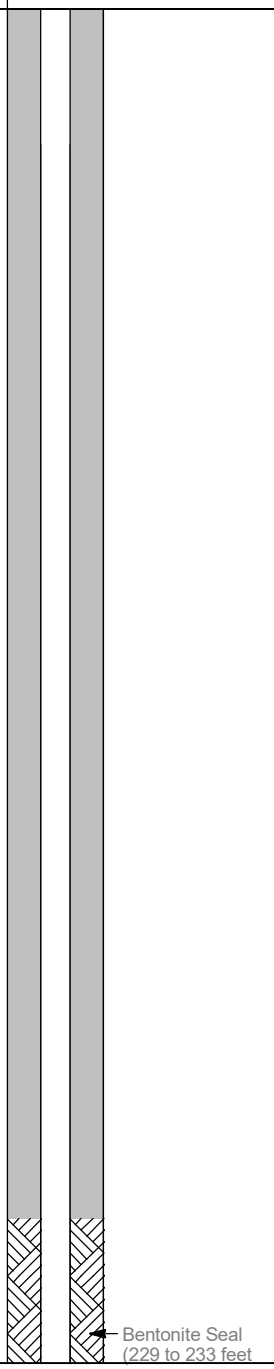
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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
210	523					
215	518					
220	513					Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet. *(continued)*
225	508	HQ	222	32.4		
230	503					

WELL DIAGRAM



SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt
Siltstone
Claystone
Interbedded Shale
Silty Sand
Shale
Limestone

ACRONYM LEGEND

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Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Red, CLAYSTONE, purple-red, blue -gray, yellow, massive, slightly weathered, moderately strong, wet. *(continued)*	bgs)
						234.5	Filter Sand (233 to 257 feet bgs) (Global #5)
235	498						
240	493						
245	488	HQ	204	62.3		Bluish Gray, SANDSTONE, interbedded siltstone, fine grained, little mica, trace pyrite, massive, grades into dark gray, (45 degree) fracture at 237 ft, (10 degree) fracture at 240.5 ft, (180 degree) fracture at 243 ft, and (180 degree) fracture at 245.5 ft, wet. [Cow Run Sandstone]	Well Screen (235 to 255 feet bgs) (2" SCH 40 PVC/ 0.01" slot)
250	483						
255	478						

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt | Siltstone | Claystone Interbedded Shale
Silty Sand | Shale | Limestone

ACRONYM LEGEND

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DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Bluish Gray, SANDSTONE, interbedded siltstone, fine grained, little mica, trace pyrite, massive, grades into dark gray, (45 degree) fracture at 237 ft, (10 degree) fracture at 240.5 ft, (180 degree) fracture at 243 ft, and (180 degree) fracture at 245.5 ft, wet. [Cow Run Sandstone] *(continued)*	Sump (2" SCH 40 PVC/2' long) (255 to 257 feet bgs)
						257.0 Dark Gray, SHALE, bluish-gray, very thinly laminated, slightly weathered, moderately strong, wet.	
						258.0 *Bottom of Boring @ 258.00 feet bgs*	
260	473						
265	468						
270	463						
275	458						

SAMPLE TYPE

HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

Silt | Siltstone | Claystone Interbedded Shale
Silty Sand | Shale | Limestone

ACRONYM LEGEND

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2022-18

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DATE STARTED: 8/11/2022
DATE COMPLETED: 8/18/2022
DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring
LOGGED BY: L. Stodden
CHECKED BY: A. Harford
NOTES: 6" Steel Stickup Protective Casing. 96156 replacement well.

TOTAL DEPTH: 223 feet bgs
DIAMETER: 6 inches
GROUND ELEVATION: 852.04
PVC ELEVATION: 854.41
NORTHING: 352327.0836
EASTING: 2061913.471

WELL DEVELOPMENT
METHOD(S): Mega Monsoon & Bailer
DATE STARTED: 9/7/2022
DATE ENDED: 11/6/2022
DTW AT START: 128.19 feet bgs
DTW AT END: 211.0 feet bgs
VOLUME PURGED: 21.25 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
		SC	36			Brown, CLAYSTONE, little silt, tan, orange mottling, thin organic lenses, moderate, moderate plasticity.
						3.0
5	847	HQ	48	0		Brown, SANDSTONE, some silt, tan, orange-red mottling, fine grained rubble zone, low cementation.
						7.0
10	842	HQ	120	6.7		Brown, SANDSTONE, some silt, tan, fine grained rubble zone, highly layered, moderate cementation.
						12.0
						Light Gray, SANDSTONE, some silt, very fine to fine grained rubble zone, highly layered, moderate cementation.
						13.0
15	837					Light Brown, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderate cementation.
						17.0
		HQ	36	27.8		Light Brown, SANDSTONE, interbedded sandstone, fine to coarse grained, highly cross bedded (alternating lithic beds), alternating light gray, highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), moderate cementation.
						18.0
20	832					Light Gray, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation.

WELL DIAGRAM
Concrete Pad and 6" Steel Stickup Protective Casing

SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Claystone Interbedded Shale
- Sandstone
- Coal
- Shale
- Siltstone
- Limestone

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Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Light Gray, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation. *(continued)*	
						21.0	
		HQ	43	55.8		Light Gray, SANDSTONE, fine to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation.	
25	827					25.0	
		HQ	55	43.6		Light Gray, SANDSTONE, thin sandstone beds (0.5-1"), fine to coarse grained, highly cross bedded (alternating lithic beds), interbedded tan-brown coarse grained sandstone, highly micaceous, moderately natural fractured (along bedding planes 165-170 degrees), high cementation.	
30	822					30.0	
		HQ	48	46.9		Light Gray, SANDSTONE, thick sandstone beds (10-12"), fine to coarse grained, highly cross bedded (alternating lithic beds), interbedded tan-brown coarse grained sandstone, highly micaceous, moderately natural fractured, (along bedding planes 150-160 degrees), high cementation.	← Bentonite Grout (0 to 62 feet bgs)
						34.0	
35	817	HQ	34	0		Brown, SANDSTONE, tan, medium to coarse grained, highly cross bedded (alternating lithic beds), highly micaceous, moderately natural fractured/weathered (along bedding planes 150-160 degrees), moderate cementation.	
						37.0	
40	812					No Recovery/Washout.	

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Claystone Interbedded Shale
- Sandstone
- Coal
- Shale
- Siltstone
- Limestone

ACRONYM LEGEND

amsl = above mean sea level
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DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

ERM
1 Beacon Street: 5th Floor
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Telephone: + 1 (617) 646-7800

Client: Gavin Power, LLC
Project Name: RWL/FAR Monitoring Well Installation
Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
45	807	HQ	0				
50	802					No Recovery/Washout. *(continued)*	
55	797					56.0	
		HQ	15	0		Brown, SANDSTONE, tan, medium to coarse grained, highly cross bedded (alternating lithic beds), interbedded light gray fine to medium grained sandstone, highly micaceous, highly decomposed, low cementation. 57.0	
60	792					No Recovery/Washout.	Well Riser (0 to 199 feet bgs) (2" SCH 40 PVC)
65	787	HQ	0				

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
70	782					No Recovery/Washout. *(continued)*	
75	777						
						76.0	
		HQ	12	37.5		Brown, SANDSTONE, tan, medium to coarse grained, highly cross bedded (alternating lithic beds), interbedded light gray fine to medium grained sandstone, highly micaceous, highly decomposed, low cementation.	Bentonite Chips (62 to 91 feet bgs)
						77.0	
						Black, COAL, rubble zone, low density, possibly bituminous.	
						79.0	
80	772						
		HQ	72	24.3		Gray, SHALE, sandstone (1' thick), alternating light to dark gray beds, interbedded light gray fine grained cross bedded sandstone, few thin pyritic lenses occur with depth, moderate cementation.	
85	767						
						87.0	
						Gray, SHALE, few alternating light to dark gray beds with depth, moderate cementation.	
90	762						

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	73	35.6		Gray, SHALE, few alternating light to dark gray beds with depth, moderate cementation. *(continued)*	
95	757						
						97.0	
						Dark Gray, CLAYSTONE, rubble zone, moderate cementation.	
						98.5	Well Riser (0 to 199 feet bgs) (2" SCH 40 PVC)
100	752	HQ	72	34		Light Bluish Gray, CLAYSTONE, some medium to coarse sand and gravel, carbonate inclusions (<0.5"), few thin pyrite lenses, fine grained gravel, moderately fractured, moderate cementation.	
105	747						
						107.0	
						Light Bluish Gray, CLAYSTONE, some medium to coarse sand and gravel, carbonate inclusions (<0.5"), few thin pyrite lenses, fine grained gravel, moderately fractured, moderate cementation.	
						108.0	
110	742						
		HQ	86	60.5		Red to Black, CLAYSTONE, dark gray and purple, yellow orange mottling, red and black alternating beds from 108 to 110 and transitions to dark gray/ purple with yellow mottling 110 to 115, low cementation.	

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	737					Red to Black, CLAYSTONE, dark gray and purple, yellow orange mottling, red and black alternating beds from 108 to 110 and transitions to dark gray/ purple with yellow mottling 110 to 115, low cementation. *(continued)*	
						115.0	
						Blue to Green Gray, SANDSTONE, little silt to clay, slight yellow to purple mottling that decreases with depth, fine grained, micaceous, few thin pyrite lenses, faint thin dark to light gray bedding, high cementation, hard.	
						117.0	
						Blue to Green Gray, SANDSTONE, little silt to clay, fine grained, micaceous, few thin pyrite lenses, faint thin dark to light gray bedding, high cementation, hard.	
						118.0	
120	732	HQ	94	76.1		Blue Gray, CLAYSTONE, some fine sand and silt, yellow - orange to red - purple mottling, layered, moderately fractured, slightly decomposed, moderate cementation.	
						123.0	
125	727					Blue to Green Gray, SANDSTONE, fine to medium grained, alternating carbonate beds and fine grained cross beds, micaceous, calcareous, high cementation, hard.	
						127.0	
130	722	HQ	120	57.9		Blue to Green Gray, SANDSTONE, fine to medium grained, alternating carbonate beds and fine grained cross beds, micaceous, calcareous, high cementation, hard.	
135	717					136.0	
						Red Brown, CLAYSTONE, some fine sand and silt, slight yellow mottling, sharp contact at 136', partial rubble zone at base, low cementation.	
						137.0	

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
140	712	HQ	120	58.3		Red Brown, CLAYSTONE, yellow-orange mottling, interbedded olive-blue-gray micaceous sandstone, sandstone bed 1ft foot, sandstone clasts throughout claystone, high cementation. *(continued)*	
						141.0	
						Red Brown, CLAYSTONE, yellow-orange to red-purple mottling, layered, moderately fractured, slightly decomposed, moderate cementation.	← Bentonite Grout (91 to 193 feet bgs)
145	707					145.0	
						Brown, CLAYSTONE, rubble zone, fragmented claystone rock within a clay/mud matrix, broken down to mud from drill, high plasticity.	
						146.0	
						Dark Gray, CLAYSTONE, rubble zone, fragmented claystone rock within a clay/mud matrix, broken down to mud from drill, low cementation.	
						147.0	
150	702	HQ	100	46		Green Gray, SILTSTONE, some coarse sand and fine gravel, yellow mottling, moderately fractured, moderate decomposition, moderate cementation, hard.	
						153.0	
155	697					Red Brown, CLAYSTONE, yellow and purple mottling, 155' to 157' highly weathered into a clay with rock fragments, low cementation.	
						157.0	
						Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation.	
160	692						

SAMPLE TYPE

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	90	45		Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation. *(continued)*	
165	687						
						167.0	
170	682	HQ	108	44.9		Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation.	
175	677						
						177.0	
180	672	HQ	102	59.3		Red Brown, CLAYSTONE, yellow and purple mottling, high mechanical weathering, low cementation.	

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

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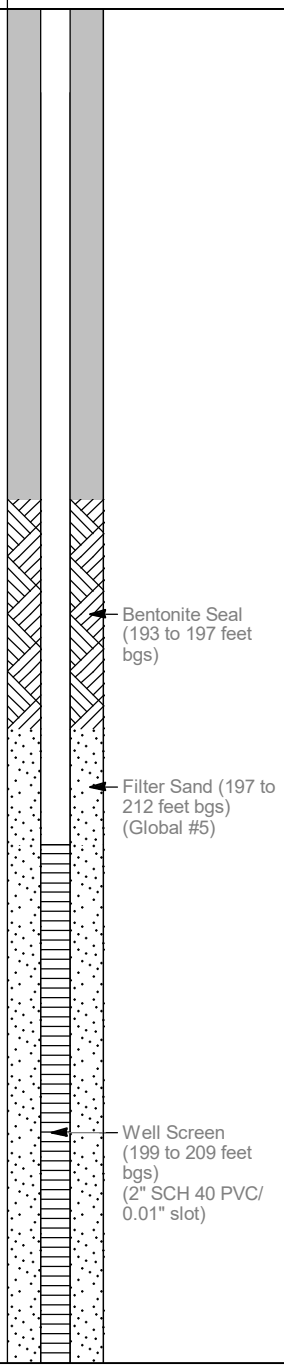
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
185	667					185.0 — Light Gray to Dark Gray, SANDSTONE, some silt and clay, very fine to fine grained, micaceous and pyritic, moderate cementation. [Morgantown Sandstone]
						187.0
190	662	HQ	120	77.5		Light Gray to Dark Gray, SANDSTONE, moderate natural fractures (160-170 degrees),fine to coarse grained, micaceous & pyritic, scouring/cross bedding/clasts (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone]
195	657					
						197.0
200	652	HQ	120	73.3		Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, interbedded dark gray siltstone beds, scouring/cross bedding/clasts (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone]
205	647					
						207.0 — Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, cross bedding (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone]



SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Claystone Interbedded Shale
- Sandstone
- Coal
- Shale
- Siltstone
- Limestone

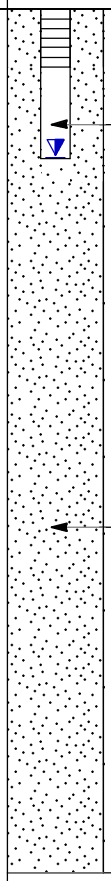
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
210	642	HQ	132	43.6		Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, cross bedding (light gray, coarse grained) throughout, high cementation, hard. [Morgantown Sandstone] *(continued)*
						213.0
215	637					Dark Gray, LIMESTONE, moderate clay, highly weathered, moderate layers, carbonate, nodules(<0.5"), claystone and sandstone clasts (<0.5"), low cementation.
						217.0
						Light Gray, SANDSTONE, moderate natural fractures (160-170 degrees), fine to coarse grained, micaceous & pyritic, cross bedding (light gray, coarse grained) throughout, high cementation, hard.
220	632	HQ	36			220.0
						Dark Gray, SHALE, rubble zone, shale fragment mixed into rock flour mud, low cementation.
						223.0
225	627					*Bottom of Boring @ 223.00 feet bgs*
230	622					

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

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- Sandstone
- Coal
- Shale
- Siltstone
- Limestone

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2022-19

Client: Gavin Power, LLC
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Project Number: 0643653
Project Location: Cheshire, OH

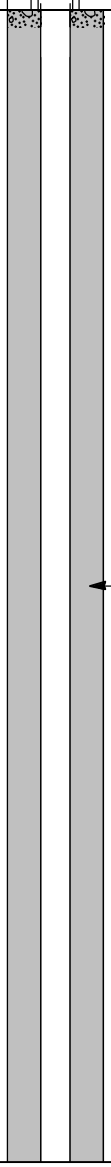
DATE STARTED: 7/25/2022
DATE COMPLETED: 7/26/2022
DRILLING CONTRACTOR: Cascade Drilling
DRILLING METHODS: Sonic Drilling & Wireline Rock Coring
LOGGED BY: J. Maag
CHECKED BY: A. Harford
NOTES: 6" Steel Stickup Protective Casing. 9396 replacement well.

TOTAL DEPTH: 119 feet bgs
DIAMETER: 6 inches
GROUND ELEVATION: 613.58
PVC ELEVATION: 616.04
NORTHING: 348497.3409
EASTING: 2072997.258

WELL DEVELOPMENT
METHOD(S): Mega Monsoon, Hurricane Pump & Bailer
DATE STARTED: 9/7/2022
DATE ENDED: 11/6/2022
DTW AT START: 112.65 feet bgs
DTW AT END: 119.0 feet bgs
VOLUME PURGED: 3.8 gallons

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						Brown, GRAVELLY SILT, some angular coarse gravel, very soft, non-plastic.
						1.0
		SC	36			Yellowish Brown, SANDY SILT, fine sand, non-plastic, very stiff, dry.
5	609					
						7.0
						Red, CLAY, coarse sand, greenish-gray, orange, purple, black sand particles, low plasticity, stiff, wet.
10	604					
						10.5
		SC	96			Red, CLAY, purple-red, green gray and yellow mottling, medium plasticity, very stiff, moist.
15	599					
20	594					

WELL DIAGRAM



SAMPLE TYPE
- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND
- Gravelly Silt
- Sandy Silt
- Clay
- Claystone Interbedded Shale
- Siltstone
- Shale

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
		HQ	120	0		Red, CLAY, purple-red, green gray and yellow mottling, medium plasticity, very stiff, moist. *(continued)*	
						24.0	
25	589					Red, CLAYSTONE, purple-red, intensely weathered, moist.	
						27.0	
						Green Gray, SILTSTONE, slightly weathered, very thinly laminated, weak.	← Bentonite Grout (0 to 36)
30	584	HQ	96	29.2			
						32.0	
						Red, SILTSTONE, purple-red, slightly weathered, very thinly laminated, weak.	
35	579						
						37.0	
						Green Gray, CLAYSTONE, little pyrite, very thinly laminated, slightly weathered, weak.	
40	574						
						41.5	
		HQ	120	35		Red, CLAYSTONE, little pyrite, purple-red, very thinly laminated, slightly weathered, weak.	

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Gravelly Silt
- Sandy Silt
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- Claystone Interbedded Shale
- Siltstone
- Shale

ACRONYM LEGEND

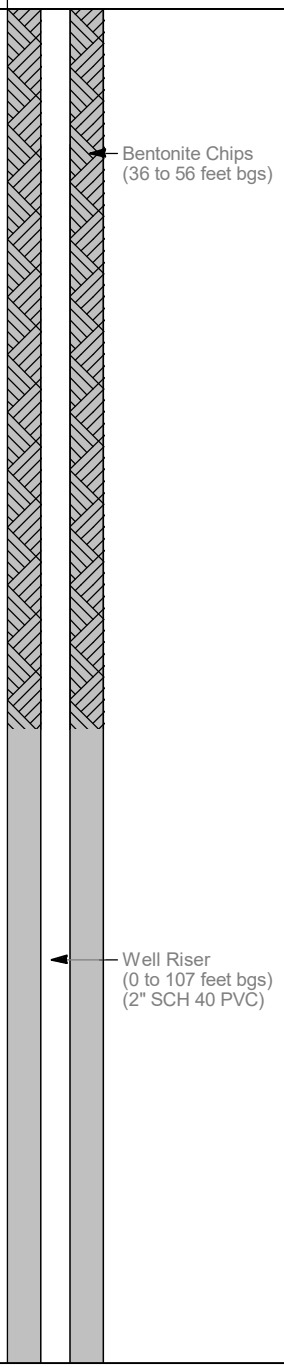
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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
45	569					Red, CLAYSTONE, little pyrite, purple-red, very thinly laminated, slightly weathered, weak. *(continued)*
						45.0
						Red, CLAYSTONE, little pyrite, purple-red, very thinly laminated, intensely weathered, weak.
						47.0
						CLAYSTONE, purple, orange, green gray, moderately weathered, moderately weak, wet.
50	564					50.0
		HQ	96			CLAYSTONE, purple, greenish-gray, orange, intensely weathered, moderately disintegrated, very weak, wet.
55	559					
						57.0
						Red, CLAYSTONE, trace pyrite, purple-red, green gray, yellow, intensely weathered, moderately weak, wet.
60	554					
						61.0
		HQ	84	0		Red, CLAY SHALE, purple-red, orange, greenish gray, very thinly laminated, intensely weathered, very weak, wet.
65	549					

WELL DIAGRAM



SAMPLE TYPE

- Sonic Drilling (SC)
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GRAPHIC LOG LEGEND

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
						Red, CLAY SHALE, purple-red, orange, greenish gray, very thinly laminated, intensely weathered, very weak, wet. *(continued)*	
						68.0	
70	544	HQ	72	27.8		Red, CLAYSTONE, purple-red, greenish gray, yellow, massive, moderately weathered, weak, wet.	
75	539						
						78.0	
						Red, SHALE, purple-red, greenish gray, sandy, very thinly laminated, intensely weathered, weak, wet.	← Bentonite Grout (56 to 101 feet bgs)
80	534						
						81.0	
		HQ	48	18.8		Red, CLAYSTONE, purple-red, greenish gray, orange, massive, very weathered, weak, wet.	
85	529						
90	524						

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DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION
						91.0
		HQ				Green Gray, SANDSTONE, trace mica, fine grained, very thinly laminated, moderately weathered, moderately strong, wet.
95	519					
						97.0
						Red, CLAY SHALE, purple-red, greenish gray, very thinly laminated, moderately weathered, very weak, wet.
						98.0
100	514					
		HQ	102			Green Gray, SANDSTONE, trace mica and pyrite, massive, slightly weathered, moderately strong, wet.
105	509					
						105.0
						Green Gray, CLAY SHALE, very thinly laminated, very weathered, weak, wet.
						107.0
110	504					
		HQ	120	26.7		Green Gray, SANDSTONE, dark gray, fine grained, massive, fresh, moderately strong, wet. [Cow Run Sandstone]

WELL DIAGRAM

- Bentonite Seal (101 to 105 feet bgs)
- Filter Sand (105 to 119 feet bgs) (Global #5)
- Well Screen (107 to 117 feet bgs) (2" SCH 40 PVC/ 0.01" slot)

SAMPLE TYPE

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- HQ Wireline Rock Coring (HQ)

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Project Number: 0643653
Project Location: Cheshire, OH

DEPTH (feet)	ELEVATION (feet amsl)	SAMPLE TYPE & RUN	RECOVERY (inches)	RQD %	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
115	499					Green Gray, SANDSTONE, dark gray, fine grained, massive, fresh, moderately strong, wet. [Cow Run Sandstone] *(continued)*	
						115.0	
						Green Gray, CLAYSTONE, dark gray, intensely weathered, intensely disintegrated, wet.	
						117.0	
						Not Recovered.	Sump (2" SCH 40 PVC/2' long) (117 to 119 feet bgs)
						119.0	
120	494					*Bottom of Boring @ 119.00 feet bgs*	
125	489						
130	484						
135	479						

SAMPLE TYPE

- Sonic Drilling (SC)
- HQ Wireline Rock Coring (HQ)

GRAPHIC LOG LEGEND

- Gravelly Silt
- Sandy Silt
- Clay
- Claystone Interbedded Shale
- Siltstone
- Shale

ACRONYM LEGEND

amsl = above mean sea level
bgs = below ground surface
DTW = depth to water
NA = not applicable
NM = not measured
NR = no recovery
PVC = polyvinyl chloride

APPENDIX C GAVIN RESIDUAL WASTE LANDFILL AND FLY ASH POND FIRST SEMIANNUAL SAMPLING EVENT OF 2024 ASD REPORT

First Semiannual Sampling Event of 2024 Alternate Source Demonstration Report

Gavin Residual Waste Landfill and Fly Ash Reservoir

PREPARED FOR
Gavin Power, LLC

DATE
6 August 2024

REFERENCE
0720782

SIGNATURE PAGE

First Semiannual Sampling Event of 2024 Alternate Source Demonstration Report

Gavin Residual Waste Landfill and Fly Ash Reservoir

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
AEP	American Electric Power Service Corporation
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
ERM	Environmental Resources Management
FAR	Fly Ash Reservoir
FGD	Flue Gas Desulfurization
Gavin	Gavin Power, LLC
GWI	Groundwater Intercept
K	Hydraulic Conductivity
H1	First Semiannual
mg/L	milligrams per liter
ODNR	Ohio Department of Natural Resources
ORSANCO	Ohio River Valley Water Sanitation Commission
Plant	General James M. Gavin Power Plant
PVC	Polyvinyl chloride
SSI	Statistically significant increase
TDS	Total Dissolved Solids
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

1. INTRODUCTION

1.1 REGULATORY AND LEGAL FRAMEWORK

In accordance with Title 40 Code of Federal Regulations (CFR), Part 257, Subpart D – Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments (CCR Rule) – Gavin Power, LLC (Gavin) has been implementing the groundwater monitoring requirements of 40 CFR § 257.90 et seq. for its Residual Waste Landfill (RWL) and Fly Ash Reservoir (FAR) at the General James M. Gavin Power Plant (Plant) using a combined groundwater monitoring network for the RWL and FAR. Gavin calculated background levels and conducted statistical analyses for Appendix III constituents in accordance with 40 CFR § 257.93(h). Currently, Gavin is performing detection monitoring at the RWL and FAR in accordance with 40 CFR § 257.94.

Statistically significant increases (SSIs) over background concentrations were detected in downgradient monitoring wells for some Appendix III constituents for the first semiannual (H1) groundwater sampling event of 2024 and are explained in this Alternate Source Demonstration (ASD) Report. The first semiannual groundwater sampling event of 2024 was performed from March 8, 2024 to March 15, 2024. Review of data for quality assurance and statistical comparison was completed on May 8, 2024. Pursuant to 40 CFR § 257.94(e)(1), Gavin must establish an assessment monitoring program for the combined RWL/FAR groundwater monitoring system unless an Alternate Source Demonstration (ASD) is completed and certified by a Professional Engineer by August 6, 2024. This ASD Report, which has been completed and certified by the August 6, 2024 deadline, will be included with the annual groundwater monitoring and corrective action report required under CFR § 257.90(e), which is due January 31, 2025.

An SSI for one or more Appendix III constituents is a *potential* indication of a release of constituents from a CCR unit to groundwater. In the event of an SSI, the CCR Rule provides that "… the owner or operator may demonstrate that a source other than the CCR unit caused the SSI over background levels for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality…" (40 CFR § 257.94(e)(2)). If it is demonstrated that the SSI is the result of a source other than the CCR unit, then the CCR unit may remain in the Detection Monitoring Program instead of transitioning to an Assessment Monitoring Program. To implement this demonstration, an ASD must be made in writing and the accuracy of the information must be verified through certification by a qualified Professional Engineer (40 CFR § 257.94(e)(2)).

The United States Environmental Protection Agency (USEPA) guidance document, "Solid Waste Disposal Facility Criteria Technical Manual, EPA530-R-93-017, Subpart E" (USEPA 1993), specifies the following six lines of evidence that must be addressed to determine whether an SSI resulted from a source other than the regulated disposal unit:

- an alternative source exists;

- a hydraulic connection exists between the alternative source and the well with a statistically significant increase;
- constituent(s) (or precursor constituents) are present at the alternative source or along the flow path from the alternative source prior to possible release from the unit;
- the relative concentration and distribution of constituents in the zone of contamination are more strongly linked to the alternative source than to the unit when the fate and transport characteristics of the constituents are considered;
- the concentration observed in groundwater could not have resulted from the unit given the waste constituents and concentrations in the unit leachate and wastes, and the site hydrogeologic conditions; and
- the data supporting conclusions regarding the alternative source are historically consistent with the hydrogeologic conditions and findings of the monitoring program.

This ASD Report addresses each of these lines of evidence for the SSIs detected in groundwater collected from downgradient compliance wells at the RWL and FAR. The groundwater monitoring program and ASD have been prepared utilizing accepted practices incorporating both site specific and regional information.

Some of the topics discussed in this report are also addressed in USEPA's November 22, 2022 Final Decision: Denial of Alternative Closure Deadline for General James M. Gavin Plant, Cheshire, Ohio (Final Decision). In other documents, Gavin has explained how the approaches described and documented in this report are consistent with USEPA regulations and guidance as well as with best engineering practices and judgment. Gavin has contested USEPA's findings in the Final Decision from a factual, technical and legal perspective. ERM notes that USEPA's findings and determinations in the Final Decision are the subject of pending litigation.

1.2 BACKGROUND

The Plant is a coal-fired generating station located in Cheshire, Gallia County, Ohio (Figure 1-1), and is bounded to the east by the Ohio River. The RWL and FAR are two of three CCR units at the Plant that are subject to regulation under the CCR Rule (the third unit is the Bottom Ash Pond (BAP) but that unit is not discussed in this report). The RWL is approximately 400 acres in size and is located about 1.25 miles northwest of the Plant (Figure 1-2). The CCR material disposed in the RWL is Flue Gas Desulfurization (FGD) byproduct (consisting of scrubber cake, fly ash, and lime) and other approved materials (bottom ash, lime ball mill rejects, coal pulverizer rejects, and BAP sediments).

The FAR is approximately 300 acres in size and is located about 2.5 miles northwest of the Plant (Figure 1-2). From the mid-1970s until January 1995, fly ash was sluiced to the FAR and the settled CCR materials in the FAR were retained behind the Stingy Run Fly Ash Dam that formed the FAR. The FAR was closed in place, and the closure was completed in 2021. Closure was certified on July 30, 2021.

An updated combined groundwater monitoring system was certified in August 2021 to collectively monitor for potential releases from the RWL and FAR. Previously, Gavin maintained and monitored two separate (though adjacent) groundwater monitoring networks for the RWL and FAR, respectively. The combined monitoring network was certified on 31 August 2021 with completion of the Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91 (ERM 2021).

The combined network which monitors both the RWL (Figure 1-3) and FAR (Figure 1-4) currently includes 24 upgradient and 15 downgradient monitoring wells located in the Alluvium, Morgantown Sandstone, and Cow Run Sandstone. The upgradient wells are placed to accurately represent the quality of background groundwater that has not been affected by any potential leakage from the RWL and FAR units, while the downgradient wells in the network are positioned at the downgradient boundary of waste to detect potential release of CCR constituents from the CCR units into groundwater in the uppermost aquifer.

Consistent with the CCR Rule and with Gavin's Statistical Analysis Plan (ERM 2017), an interwell prediction limit approach was used to identify potential impacts to groundwater. Upper prediction limits were developed for the Appendix III parameters; in the case of pH, a lower prediction limit was also developed. Documentation of the development of the upper prediction limits and lower prediction limit is provided in the 2018 Alternate Source Demonstration for the RWL (ERM 2018b).

In 2022, six new monitoring wells were installed around the RWL and FAR to act as replacements for previously existing monitoring wells that were part of the certified monitoring network but that had to be removed as a result of a variety of factors, including landfill expansion activities. In addition, another eight new wells were installed in 2022 around the RWL and FAR to monitor groundwater in between existing monitoring well locations. Sampling is occurring at these wells, which are also being evaluated for addition to the monitoring network but have not yet been added to the certified network.

1.3 GEOLOGY AND HYDROGEOLOGY

The shallowest geologic materials at the FAR/RWL include residual soils, mine spoil, fill, and weathered and fractured bedrock (ERM 2021). Measured hydraulic conductivities for fine-grained soils range from 1.03×10^{-8} centimeters per second (cm/sec) to 5.60×10^{-9} cm/sec. The shallowest weathered and fractured bedrock includes the Pomeroy Sandstone and Coal, the Pittsburgh Sandstone and Coal, the Bellaire Sandstone, and the Connellsville Sandstone units. Although some of these units may be partially or fully saturated in the vicinity of the FAR and RWL, these formations generally are not capable of yielding usable quantities of groundwater, and thus are not considered part of the uppermost aquifer at the FAR/RWL. Bedrock dip is to the southeast at approximately 17 feet/mile (AEP 1993). Geologic cross sections for the RWL and FAR are provided as Figure 1-5 and Figure 1-6, respectively.

Beneath the Connellsville Sandstone are the Clarksburg Red Beds, which is a regionally extensive aquitard (low-permeability rock layer), with a typical thickness of approximately 50 feet, that

hydraulically isolates the shallower formations from the underlying aquifers. Beneath the Clarksburg Red Beds are the Morgantown Sandstone and the Cow Run Sandstone. Together these are interpreted as the uppermost aquifer beneath the RWL and FAR (Geosyntec 2016a; Geosyntec 2016b).

The Morgantown Sandstone has an average thickness of approximately 30 feet and is composed of two thin sandstone beds separated by clay shale. East of the RWL, the Morgantown Sandstone has been removed by erosion and is absent, and groundwater migrating eastward within the Morgantown Sandstone discharges to the alluvial aquifer located along the Stingy Creek valley. In these areas (i.e., where the Morgantown Sandstone is absent) ,the alluvial aquifer is also considered part of the uppermost aquifer.

Below the Morgantown Sandstone is a unit of approximately 60 feet of interbedded claystone/clay shale and non-crystalline limestone layers, known as the Round Knob Shale. These strata extend to the top of the Cow Run Sandstone. The two bedrock units, the Connellsville Sandstone and the Morgantown Sandstone, have been partially-to-completely eroded in portions of the valley areas of the FAR. The Connellsville Sandstone has been completely eroded away in all valley areas and the deeper Morgantown Sandstone has been completely eroded away in the eastern portions of the FAR valley near the former Fly Ash Dam (FAD) as seen in borings advanced in 2022 (ERM 2024). Together, the residual clay soils and deeper Round Knob Shale unit provide hydraulic separation from the aquifers underlying the FAR.

The Cow Run Sandstone has an average thickness of 30 feet and is characterized regionally as a coarse-grained sandstone and sandy shale. The Cow Run Sandstone unit is continuous under the FAR/RWL and considered the base of the uppermost aquifer. Beneath the Cow Run Sandstone are the Portersville Limestone and the Anderson Clay, which consist primarily of shale, claystone, and clay shale (AEP and Geosyntec 2012). These low permeability formations are interpreted to comprise the lower hydraulic boundary of the uppermost aquifer.

1.3.1 GROUNDWATER FLOW

The removal of strip mine ponds, installation of groundwater intercept (GWI) drains, and placement of the composite liner under the RWL resulted in decreased recharge to the Morgantown Sandstone and Cow Run Sandstone. The changes during and post-construction were interpreted to result in the decline of potentiometric elevations up to 10 feet, which is similar to observed declines at another AEP residual waste landfill (AEP 1993).

Groundwater within the Morgantown Sandstone and Cow Run Sandstone generally flows from the northwest to the southeast under the FAR and the RWL (Figure 1-7 and Figure 1-8). To the west of the FAR/RWL, groundwater flows from west to east before joining the overall flow pattern to the southeast. There is a potentiometric trough that extends from the FAR through the RWL that is interpreted to be the result of reduced recharge due to suppression of infiltration through the cap at the FAR, and the liner system at the RWL. There is a potentiometric ridge located along the eastern border of the RWL that divides groundwater flow, with water to the northeast of this ridge flowing to the northeast, and water to the southwest of the ridge flowing to the southwest before

joining the overall flow pattern to the southeast. These groundwater flow interpretations are generally consistent with pre-construction observations (AEP 1993).

At the FAR, shallow groundwater flow exhibits a subdued reflection of Site topography. No additional monitoring wells that could be used to determine potentiometric water levels or assess groundwater flow have been installed within the footprint of the closed FAR because of the complications associated with drilling through CCR materials.

1.4 2024 H1 GROUNDWATER SAMPLING EVENT

The data from the first semiannual groundwater sampling event from 2024 were compared to the upper and lower prediction limits for the Appendix III parameters, and SSIs for Appendix III analytes were identified. Tables 1-1 and 1-2 summarize occurrences of SSIs from the March 2024 sampling event.

TABLE 1-1 SSIS IN MORGANTOWN SANDSTONE AND ALLUVIUM DOWNGRADIENT MONITORING WELLS[1]

Analyte	Monitoring Well								
	96157	94137	9802	2016-05	2000	2018-02	2018-04	93108	9806
Boron	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Calcium	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Chloride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Fluoride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
pH, field	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Sulfate	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Total Dissolved Solids	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ

[1] Notes: ϕ = No SSI; SSI = statistically significant increase.

TABLE 1-2 SSIS IN COW RUN SANDSTONE DOWNGRADIENT MONITORING WELLS[2]

Analyte	Monitoring Well				
	2016-06	2018-01[i]	2018-03	94136	9631
Boron	ϕ	NS	ϕ	ϕ	ϕ
Calcium	ϕ	NS	ϕ	ϕ	X
Chloride	ϕ	NS	ϕ	ϕ	X
Fluoride	ϕ	NS	ϕ	ϕ	ϕ
pH, field	ϕ	NS	ϕ	ϕ	ϕ
Sulfate	ϕ	NS	ϕ	ϕ	ϕ
Total Dissolved Solids	ϕ	NS	ϕ	ϕ	X[ii]

This ASD Report identifies the regional discharge of naturally occurring brine originating from bedrock as the source of calcium, chloride, and total dissolved solids (TDS) detected in groundwater collected from monitoring well 9631. Supporting information and additional discussion of the lines of evidence are presented in subsequent sections of this ASD Report.

[2] Notes: ϕ = no SSI; X = SSI; SSI = statistically significant increase; NS= not sampled
i) Well 2018-01 was abandoned in 2022. A replacement monitoring well is currently being evaluated.
ii) The SSI for total dissolved solids was detected only in the field duplicate and not in the normal sample. Despite the lack of an SSI in the normal sample, the SSI for total dissolved solids in the duplicate sample is addressed in this Alternate Source Demonstration Report.

2. DESCRIPTION OF ALTERNATE SOURCES

Regional Brine is identified as the alternate source for the calcium, chloride, and TDS that are observed at the FAR/RWL. This a due to naturally occurring brine originating in/from bedrock (i.e., Cow Run Sandstone) as observed in shallow groundwater in and around Gavin.

A summary of regional brine and its influence on groundwater quality is provided below.

2.1 REGIONAL BRINE

Naturally occurring brine, which is known in the Ohio River Valley to have elevated levels of calcium, chloride, and other trace elements, exists in the subsurface (Stout et al. 1932; ORSANCO 1984; ODNR 1995). The discharge of brines is seen at a regional scale, with shallow wells near the Ohio River observing brine impacts because of the vertical head gradient driving overall flow upwards from bedrock to alluvium (USGS 1997). The Cow Run Sandstone is the shallowest sandstone of any importance in Ohio where brine of marine origin has been observed (Phalen 1919; Stout et al. 1932). Brine was discovered at the land surface approximately 10 miles southwest of the Plant in Gallipolis, Ohio and was utilized for the commercial production of salt beginning in 1807. This commercial production was enhanced by advancing a boring to a depth of 100 feet below ground surface, which resulted in a brine much stronger than found at the land surface (Stout et al. 1932). Naturally occurring brine was also identified at the land surface in Jackson, Ohio approximately 30 miles west of the Plant (ODNR 1995). The regional presence of shallow brine indicates the potential for naturally occurring brine to contribute Appendix III constituents in groundwater at the Plant. Evidence of brine impacts near the Plant includes specific conductivity measurements at several Cow Run Sandstone monitoring wells upgradient of the RWL and FAR that are consistently greater than 30,000 µS/cm and reach as high as 50,062 µS/cm at monitoring well 2019-07. For reference, the approximate specific conductivity of seawater is 50,000 µS/cm (USGS 2019). The same upgradient wells have historically contained elevated levels of constituents like calcium and chloride which range as high as 1,000 mg/L and 23,000 mg/L, respectively.

The background groundwater data set is discussed further in Section 4.

3. HYDRAULIC CONNECTIONS TO THE ALTERNATE SOURCES

Explanations of the hydraulic connections between potential alternate sources and downgradient wells at the FAR/RWL were provided in the first ASD Reports for the FAR and RWL (ERM 2018a, ERM 2018b) – see below. Groundwater potentiometric contour maps for the Morgantown and Cow Run Sandstone are depicted in Figures 1-7 and 1-8, respectively.

3.1 HYDRAULIC CONNECTION TO REGIONAL BRINE

Regional groundwater within the fractured sedimentary bedrock in the Ohio River Valley generally flows from areas of higher topographic elevation towards areas of lower elevation, ultimately discharging to the Ohio River (ORSANCO 1984). Precipitation infiltrates the land surface to recharge the underlying aquifers below, and flow of groundwater within these aquifers is primarily driven by the gravitational force on groundwater (differences in hydraulic head) within the bedrock. The Cow Run Sandstone extends west of the FAR/RWL where naturally occurring brine (with elevated calcium, chloride, and TDS) is known to impact Cow Run groundwater (Phalen 1919, Stout et. al. 1932). The section of the aquifer under the southeastern portion of the FAR and extending toward the southeast under the RWL in the Morgantown and Cow Run Sandstone contains a region of lower hydraulic pressure (in comparison to the surrounding areas). The pathway for regional groundwater flows through the fractured bedrock from the northern and western regions under the FAR/RWL that have access to brine, to the lower pressure southern and eastern regions toward the Ohio River. The forested and pastured areas surrounding the FAR and RWL are more permeable and exhibit greater infiltration than the fine-grained, compacted material within the FAR and RWL. Based on these considerations, the fractured rock of the sandstones is hydraulically connected to the potential alternate source of calcium, chloride, and TDS.

3.1.1 HYDRAULIC CONDUCTIVITY

Packer tests were completed in 2012 to assess hydraulic conductivity for locations in both the Morgantown and Cow Run Sandstone around the northern portion of the RWL (AEP and Geosyntec 2012). The range of hydraulic conductivity values from the packer tests in the Morgantown and Cow Run are provided in Table 3-1.

TABLE 3-1: ESTIMATED HYDRAULIC CONDUCTIVITY VALUES FOR MORGANTOWN AND COW RUN SANDSTONE[3]

	Average K	Low K	High K
Morgantown (Geosyntec 2012)	7.18 x 10^{-5} cm/sec	2.2 x 10^{-8} cm/sec	4.6 x 10^{-4} cm/sec
Cow Run (Geosyntec 2012)	2.92 x 10^{-5} cm/sec	5.0 x 10^{-8} cm/sec	5.9 x 10^{-4} cm/sec

The velocity of groundwater flowing through the Morgantown Sandstone was estimated in 2023 based on the measured horizontal hydraulic gradient (0.010 feet/feet), estimated hydraulic conductivity of 7.18 x 10^{-5} centimeters per second (AEP and Geosyntec 2012), and an estimated effective porosity value of 0.01 for fractured bedrock. The estimated groundwater velocity calculated is approximately 77 to 78 feet/year (ERM 2024).

The velocity of groundwater flowing through the Cow Run Sandstone was estimated for 2023 based on the measured horizontal hydraulic gradient (0.010 feet/feet), the estimated hydraulic conductivity of 2.92 x 10^{-5} centimeters per second (AEP and Geosyntec 2012), and an effective porosity value of 0.01 for fractured bedrock. The estimated groundwater velocity calculated is approximately 31 feet/year (ERM 2024).

Fractures observed at the site vary in frequency, distribution, and orientation as seen by the variability in monitoring well recharge rates and the measured hydraulic conductivity (Table 3-1). Groundwater flow is expected to occur primarily through the fractures, as the porosity of the fractures is expected to be much greater than the porosity of the rock matrix. Mine-roof collapse in underground mines commonly causes the overlying rocks to settle and fracture (AEP 1993). This settling may cause subsidence and the vertical propagation of extensive fractures to the land surface. Vertical seepage can also occur to lower aquifers along these steeply inclined stress relief fractures (AEP 1993). As such, areas of the Site that were previously mined are expected to act as recharge areas.

[3] Notes: i) cm/sec = centimeters per second; K = hydraulic conductivity
ii) Geosyntec 2012 values derived from packer tests (10-foot interval) completed in boreholes across mainly the northern part of the RWL.

4. CONSTITUENTS ARE PRESENT AT THE ALTERNATE SOURCES OR ALONG THE FLOW PATHWAYS

Regional brine is identified as the source of calcium, chloride, and TDS in FAR/RWL downgradient groundwater. Groundwater quality at the FAR/RWL is also influenced by external sources, as described in Sections 2, 3, and 7.

4.1 REGIONAL BRINE

Regional brine, as discussed above, is present in the area of the Plant and locally in bedrock under the FAR/RWL. Federal monitoring wells 2019-07 and 2019-09, which were installed upgradient of the RWL in Cow Run Sandstone, have chemical signatures indicating brine. In addition to the brine signatures observed in upgradient RWL wells, brine signatures have also been detected in Cow Run wells located at the BAP. The ranges for calcium, chloride, and TDS in upgradient Morgantown groundwater (2019-02 and 2019-06), upgradient Cow Run groundwater (2019-07 and 2019-09), and brine-impacted wells located at the BAP (BAC-09, BAC-11, BAC-13, BAC-19) are presented in Table 4-1.

TABLE 4-1 CONCENTRATIONS IN ON-SITE BRINE IMPACTED BEDROCK GROUNDWATER[4]

Analyte	Units	Upgradient Morgantown Groundwater at the RWL	Upgradient Cow Run Groundwater at the RWL	Bedrock Groundwater at the BAP
Calcium	mg/L	27-310	850-910	55-2,500
Chloride	mg/L	110-12,000	19,000-20,000	460-25,000
TDS	mg/L	1,300-14,000	24,000-25,000	1,600-35,000

Based on a review of permit applications for historical oil and gas wells installed within the Gavin property by prior owners, the Ohio Department of Natural Resources (ODNR) routinely required applicants to identify the company responsible for collecting, transporting, and disposing of salt water to be produced by the proposed well. Oil and gas wells in the vicinity of the Gavin plant were typically drilled to a depth of approximately 1,800 feet below ground surface and recovered brine was temporarily stored in pits at the wellsite prior to offsite disposal. In addition, the permits demonstrate that the boreholes were typically not sealed below 250 feet below ground

[4] Notes: i) mg/L = milligrams per liter; TDS = total dissolved solids
ii) Upgradient Morgantown Groundwater at the RWL includes data from monitoring wells 2019-02 and 2019-06 and represents a range of values obtained from September 2020 to February 2024
iii) Upgradient Cow Run Groundwater at the RWL includes data from monitoring wells 2019-07 and 2019-09 samples collected in March 2024
iv) Bedrock Groundwater at the BAP includes data from monitoring wells BAC-09, BAC-11, BAC-13, BAC-19 samples collected in March 2024

surface if oil and gas were not found, which would leave an unsealed borehole that could allow the upward migration of brine to shallower strata, including the Cow Run. These ODNR records demonstrate the naturally occurring presence of brine at the Gavin property in geologic strata located beneath the Cow Run Sandstone and the potential for upward migration of brine through unsealed boreholes (ODNR 2024).

The elevated concentrations of calcium, chloride, and TDS in the upgradient bedrock groundwater indicate that these constituents are present in brine at the regional level.

5. LINKAGES OF CONSTITUENT CONCENTRATIONS AND DISTRIBUTIONS BETWEEN ALTERNATE SOURCES AND DOWNGRADIENT WELLS

5.1 REGIONAL BRINE

As discussed in Sections 2 and 4, the concentrations of calcium, chloride, and TDS are elevated in regional brine. Table 4-1 demonstrates that the concentration of calcium, chloride, and TDS are higher in Cow Run groundwater upgradient of the RWL than in Morgantown groundwater in the area. This is indicative of a source emanating from a deeper stratum (e.g. where brine is found). As demonstrated in Section 4, oil & gas well permits indicate that brine is present in the area of the RWL/FAR.

Table 5-1 demonstrates that the concentrations of calcium, chloride, and TDS observed at monitoring well 9631 are consistent with upgradient wells impacted by regional brine. Regionally, concentrations of calcium exceeding 10,000 mg/L, chloride exceeding 50,000 mg/L, and TDS exceeding 100,000 mg/L have been observed in Ohio brines (Stout et. al. 1932). Thus, regional brine impacting bedrock groundwater is the alternate source of calcium, chloride, and TDS. The pathway for regional groundwater follows hydraulic pressure gradients through the fractured Cow Run Sandstone from the northern and western regions under the FAR/RWL, to the southern and eastern regions toward the Ohio River. As described in Section, 3.1.1, hydraulic conductivity of the underlying bedrock varies at the site, resulting in brine impacts being localized to individual zones.

TABLE 5-1: COMPARISON OF BRINE IMPACTED BEDROCK TO DOWNGRADIENT WELL 9631[5]

Analyte	Units	Maximum Brine-Impacted Groundwater in Upgradient Bedrock RWL/FAR (As measured at 2019-07)	Monitoring Well 9631
Calcium	mg/L	910	1,600
Chloride	mg/L	20,000	28,000
TDS	mg/L	25,000	33,000*

[5] Notes: i) RWL/FAR = residual waste landfill/fly ash reservoir; mg/L = milligrams per liter
ii) *TDS result is from a field duplicate sample
iii) Results from groundwater samples collected in March 2024

6. DATA DOES NOT INDICATE THAT THE FAR/RWL IS THE SOURCE

6.1 GEOCHEMICAL SIGNATURES

The geochemical fingerprints of landfill leachate from the RWL and downgradient well 9631 were evaluated using the concentrations of Appendix III parameters. Landfill leachate is characterized by elevated concentrations of boron, chloride, and sulfate – concentrations of these parameters in groundwater from well 9631 and leachate from Ponds 1 and 2 are shown in Figure 6-1. These parameters were selected due to their elevated concentrations in site landfill leachate, their high water solubility, limited potential for sorption, and limited potential for transformations under the redox conditions observed at well 9631.

The samples presented in these time series plots were collected from 2010 through 2024. The primary observations based on these plots are the following.

- Sulfate is consistently one-to-two orders of magnitude higher in landfill leachate than in groundwater from monitoring well 9631. The increasing concentrations of calcium, chloride, and TDS in groundwater from well 9631 were not accompanied by an increase in sulfate concentrations. Given the elevated concentrations of sulfate in landfill leachate, a release from the landfill could not occur without a concurrent increase in the concentration of sulfate in downgradient wells.
- In contrast, chloride has been consistently higher at monitoring well 9631 than in landfill leachate. Monitoring well 9631 was not sampled in 2022 or 2023 due to malfunctions with the pump. After a new pump was installed in December 2023, samples were collected in February and March of 2024. Chloride concentrations increased sharply compared to data collected in 2021 or earlier. A release of landfill leachate would result in a decrease in the concentration of chloride at monitoring well 9631, which did not occur.
- Boron is consistently an order of magnitude higher in landfill leachate than in groundwater collected from monitoring well 9631. The increasing concentrations of calcium, chloride, and TDS in groundwater from well 9631 were not accompanied by an increase in boron concentrations. Boron is expected to act as a conservative tracer due to its high solubility and mobility in water. Therefore, a release of landfill leachate would result in an increase in boron concentrations, which was not observed from 2010 through spring 2024.

A release from the RWL/FAR would result in increasing concentrations of boron and sulfate, and decreasing concentrations of chloride at monitoring well 9631. In contrast, chloride has increased since 2021 while boron and sulfate have remained stable. Further, a release from the RWL/FAR would need to migrate from the surface through the Morgantown Sandstone before concentrations would increase in the Cow Run Sandstone. SSIs were not detected in any downgradient wells screened in the Morgantown Sandstone.

Based on the data summarized above and the chemical signatures of the groundwater at issue, the RWL/FAR is not deemed to be the source of the SSIs.

7. ALTERNATE SOURCE DATA ARE HISTORICALLY CONSISTENT WITH HYDROGEOLOGIC CONDITIONS AND FINDINGS OF THE MONITORING PROGRAM

7.1 REGIONAL BRINE

The existence of Regional Brine in the area surrounding the plant is supported by historical studies and data. Regional groundwater flow regimes through fractured bedrock upgradient of the FAR/RWL were established after the last deglaciation, which occurred approximately 14,000 years ago (Hansen 2017). Enhancement of transmissivity in Ohio River Valley from stress-relief fracturing in bedrock provides conditions for bedrock to be interconnected to coarse glacial outwash alluvial deposits (USGS 1981; USGS 1997). Regional groundwater within the fractured sedimentary bedrock in the Ohio River Valley generally flows from areas of higher topographic elevation towards areas of lower elevation, ultimately discharging to the Ohio River (ORSANCO 1984). Assuming a conservatively high effective porosity of 1 percent, estimated groundwater velocity values for the Morgantown Sandstone and Cow Run Sandstone units are approximately 77 feet per year and 31 feet per year, respectively. These flow rates would allow ample time for groundwater to migrate from upgradient regional background sources to Plant property. The data supporting these conclusions are historically consistent with hydrogeologic conditions and findings of the RWL-FAR monitoring program.

The discharge of brines is seen at a regional scale along the Ohio River with shallow wells near the Ohio River observing saltwater impacts; whereas, further from the Ohio River shallow wells report little to no brine impacts (USGS 1997). At the site, upward gradients between bedrock and alluvial wells near the Ohio River have been observed, and locations with the strongest observed upward gradients generally have high hydraulic conductivities, which supports the conclusion that bedrock and alluvial aquifers are hydraulically connected on-site. Total dissolved solids, magnesium, and sodium concentrations observed in bedrock wells around the FAR/RWL are consistent with observations seen at brine-freshwater mixing zones at other brine-impacted sites (Yager et al. 2017). The regional and site-specific data are in strong agreement, therefore, and lead to the conclusion that regional brines are discharging under the FAR/RWL and mixing with Cow Run groundwater upgradient to the FAR/RWL.

8. CONCLUSIONS

The SSIs identified in this ASD Report are based on results from downgradient FAR/RWL monitoring well samples collected in March 2024. Review of data for quality assurance and statistical comparison was completed on May 8, 2024. In response to the SSIs, this ASD Report was prepared within the required 90-day period in accordance with 40 CFR § 257.94(e)(2).

SSIs in the downgradient RWL/FAR monitoring wells have been determined to result from alternate sources based on analysis of the gathered data: discharge of regional brine present in bedrock. Table 8-1 summarizes the six lines of evidence for each of the SSIs.

In conclusion, the FAR/RWL is not the source of the SSIs associated with the fist semiannual sampling event groundwater results for 2024. Thus, Gavin will continue detection monitoring at the FAR/RWL in accordance with 40 CFR § 257.94(e)(2).

TABLE 8-1: FAR/RWL ASD SUMMARY[6]

Analyte	SSI Location	Six Lines of Evidence from USEPA Guidance					
		Alternate Source	**Hydraulic Connection**	**Constituent Present at Source or along Flow Path**	**Constituent Distribution More Strongly Linked to Alternate Source**	**Constituent Could Not Have Resulted from the FAR/RWL**	**Data Are Historically Consistent with Hydrogeologic Conditions**
Calcium	9631	Regional Brine	X	X	X	X	X
Chloride	9631	Regional Brine	X	X	X	X	X
TDS	9631	Regional Brine	X	X	X	X	X

[6] Notes: FAR/RWL = fly ash reservoir/ residual waste landfill; SSI = statistically significant increase; USEPA = United States Environmental Protection Agency.

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I, or an agent under my review, have prepared this Alternate Source Demonstration Report for the Residual Waste Landfill/Fly Ash Reservoir and it meets the requirements of 40 CFR § 257.94(e)(2). To the best of my knowledge, the information contained in this Report is true, complete, and accurate.



James A. Hemme, P.E.
State of Ohio License No.: 72851

Date: 8/6/24

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FIGURES



Figure 1-1: Gavin Plant Location
Gavin Generating Station
Cheshire, Ohio

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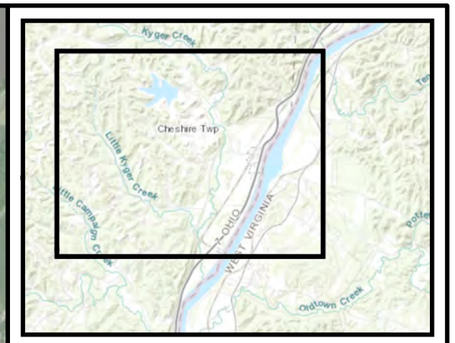
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Fly Ash Reservoir

Residual Waste Landfill

Bottom Ash Pond

Ohio River



Legend

- Bottom Ash Pond
- Fly Ash Reservoir
- Residual Waste Landfill
- Property Boundary

NOTES:
1. Aerial Imagery: ESRI World Imagery
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N

0 500 1,000 2,000 3,000 4,000
Feet

Figure 1-2: RWL and FAR Locations
Gavin Generating Station
Cheshire, Ohio

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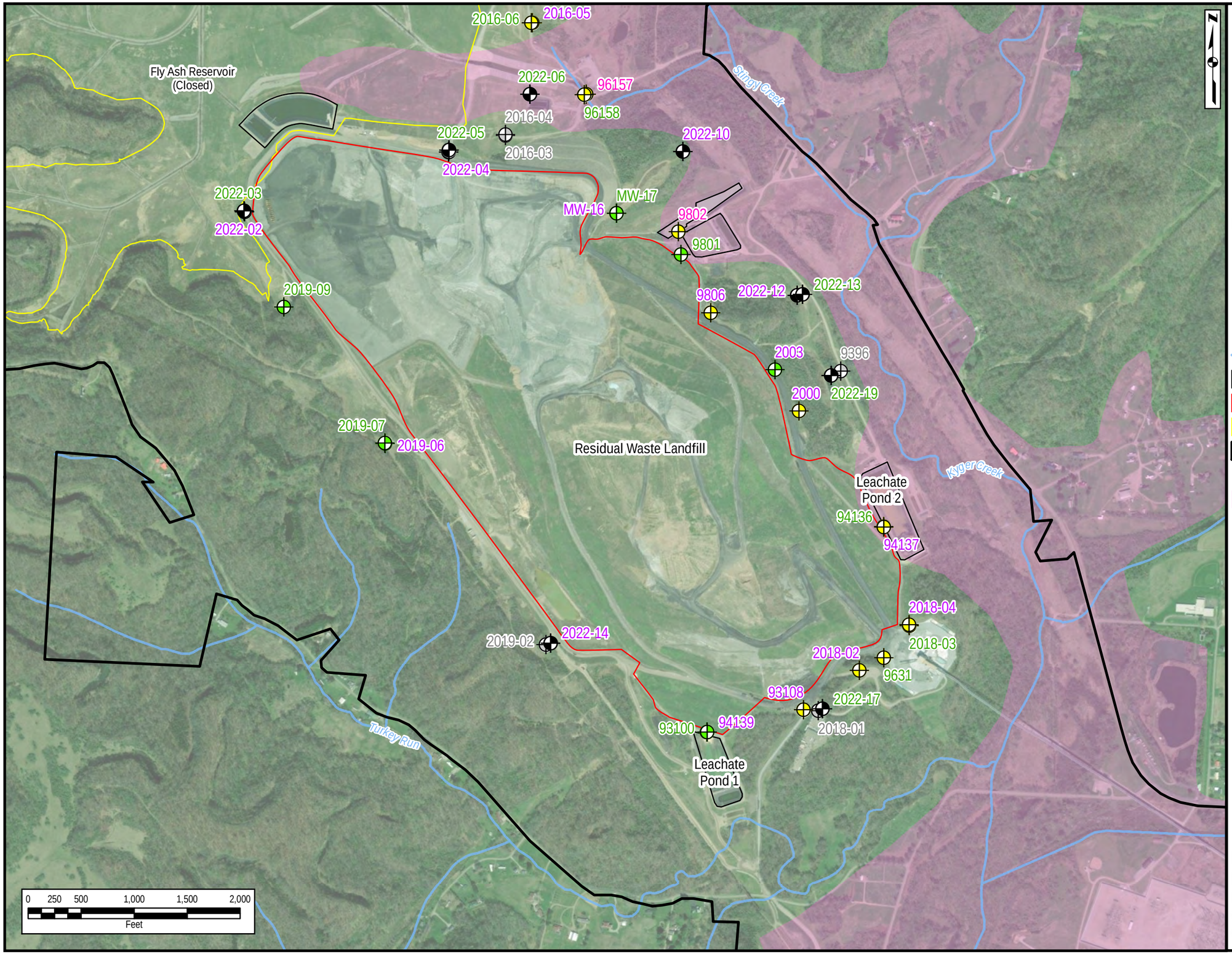
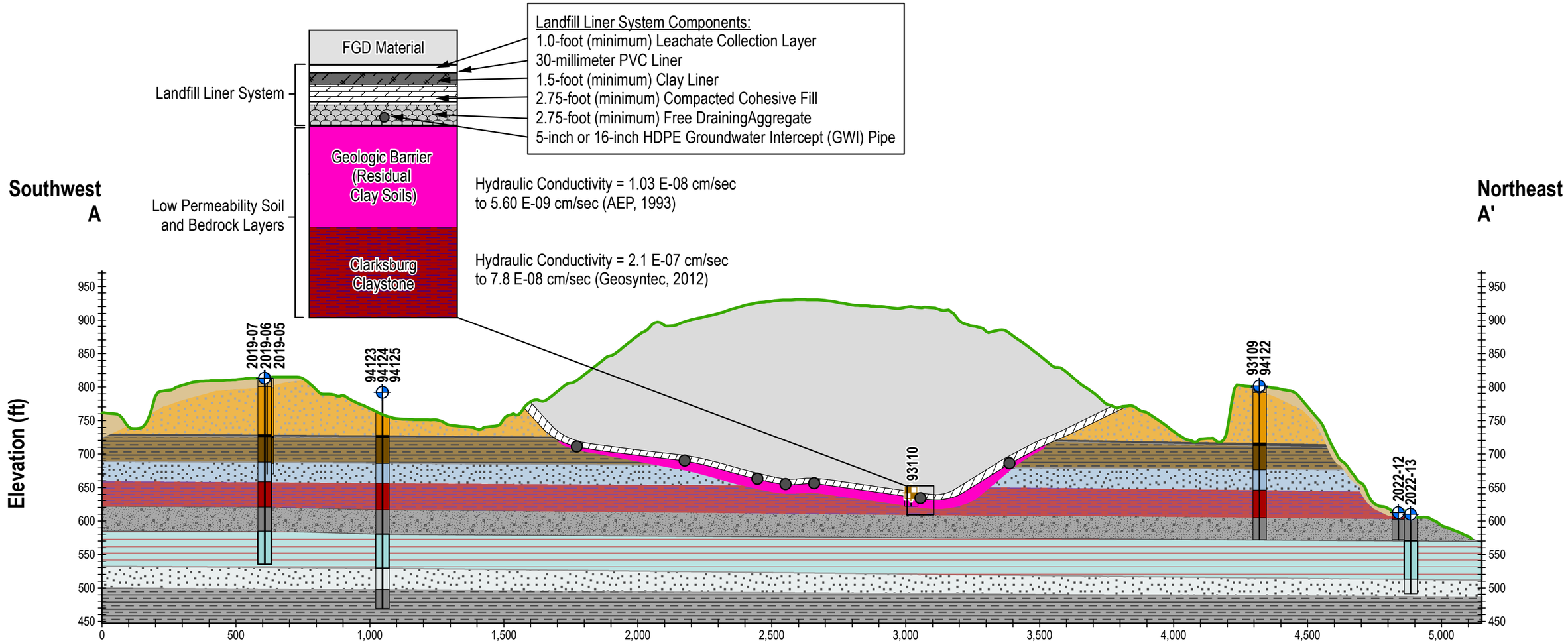


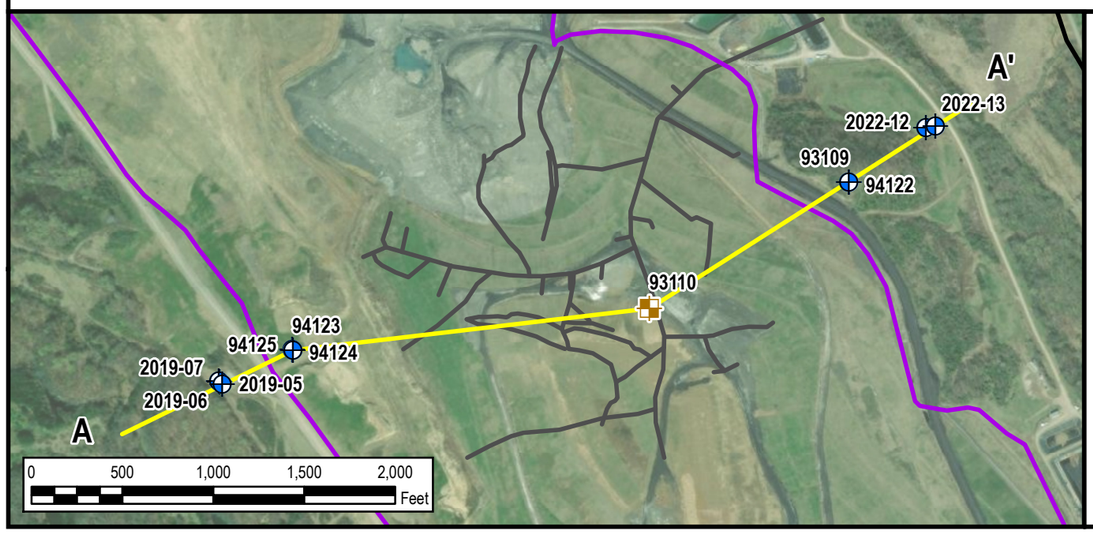
Figure 1-3: Federal Monitoring Well Locations
Residual Waste Landfill Area
Gavin Power, LLC
Cheshire, Ohio

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96153R
MW-20
96152
96154R
2016-09
2022-16
96156
2022-18
2022-15
2016-08
2016-07
9910
2016-06
2016-05
2016-10
2016-11
Fly Ash Reservoir
(Closed)
2022-06
96157
96158
2016-04
2022-05
2016-03
2022-04
2022-03
2022-02
Residual Waste Landfill
MW-16
MW-17
2019-09
0 250 500 1,000 1,500 2,000
Feet
N
FAR
RWL
Legend
2022 Well (Under Evaluation)
Federal Upgradient Monitoring Well
Federal Downgradient Monitoring Well
Abandoned Well
Stream/Creek
Pond Area
Fly Ash Reservoir
Residual Waste Landfill
Gavin Property Boundary
Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)
94138 Alluvium Monitoring Well
93108 Morgantown Monitoring Well
93105 Cow Run Monitoring Well
96156 Abandoned Well
NOTE:
- Aerial Imagery: ESRI World Imagery
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Figure 1-4: Federal Monitoring Well Locations
Fly Ash Reservoir Area
Gavin Power, LLC
Cheshire, Ohio
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Legend

- Monitoring Well
- Soil Boring
- Groundwater Intercept (GWI) Infrastructure
- Surface Profile - 2022
- Boring Trace
- Cross-section Transect
- Approximate GWI Piping
- Proposed Limit of Waste
- Site Boundary
- Landfill Liner System

Generalized Lithology

- Overburden/Fill
- FGD Material
- Geologic Barrier (Residual Clay Soils)
- Pomeroy Sandstone
- Pomeroy Coal
- Undifferentiated Pittsburgh
- Connellsville Sandstone
- Clarksburg Claystone
- Morgantown Sandstone
- Round Knob Shale
- Cow Run Sandstone
- Anderson/Bloomfield/Buffalo Clayshale

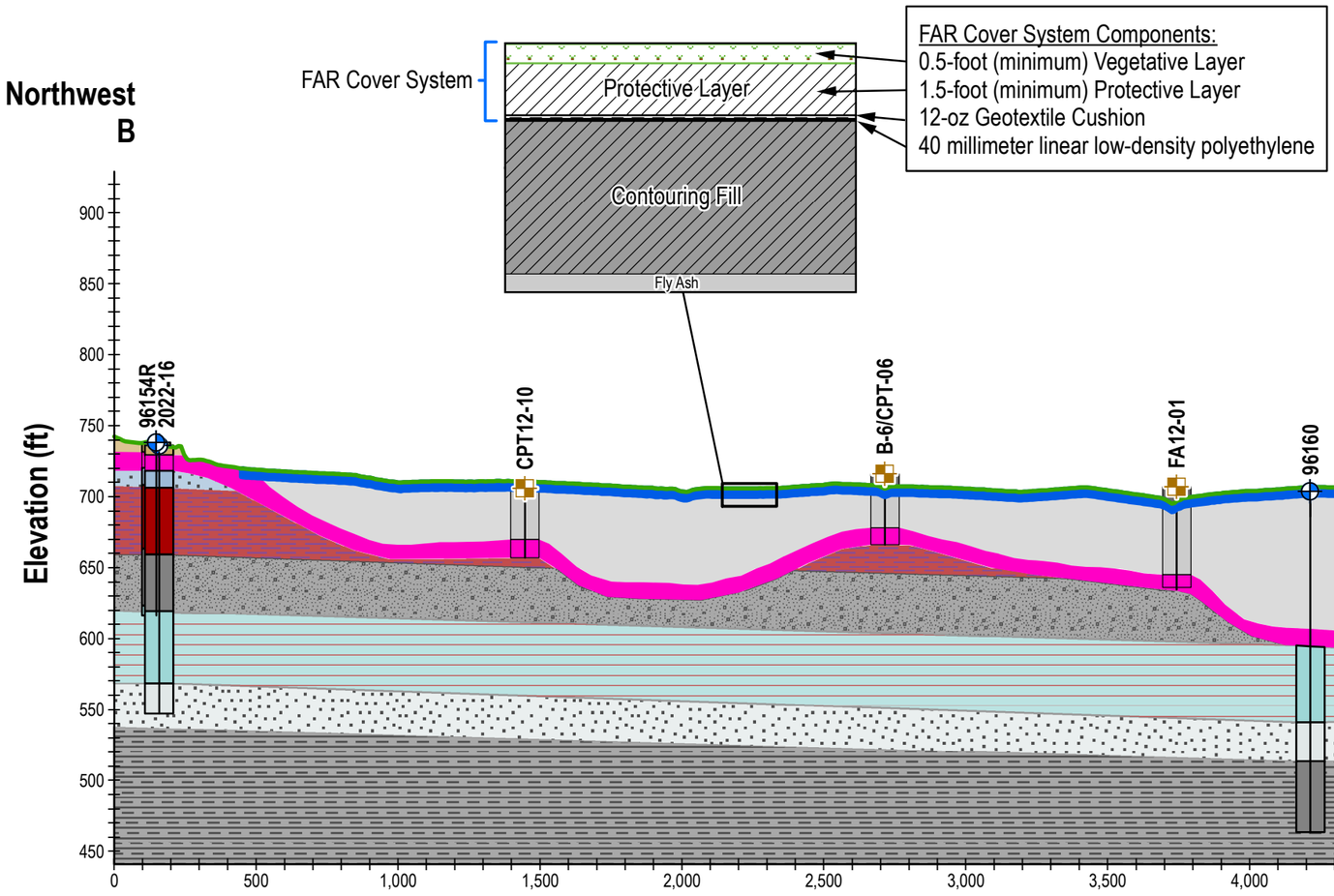
Figure 1-5: Geologic Cross Section A-A'
Gavin Power, LLC
Cheshire, Ohio

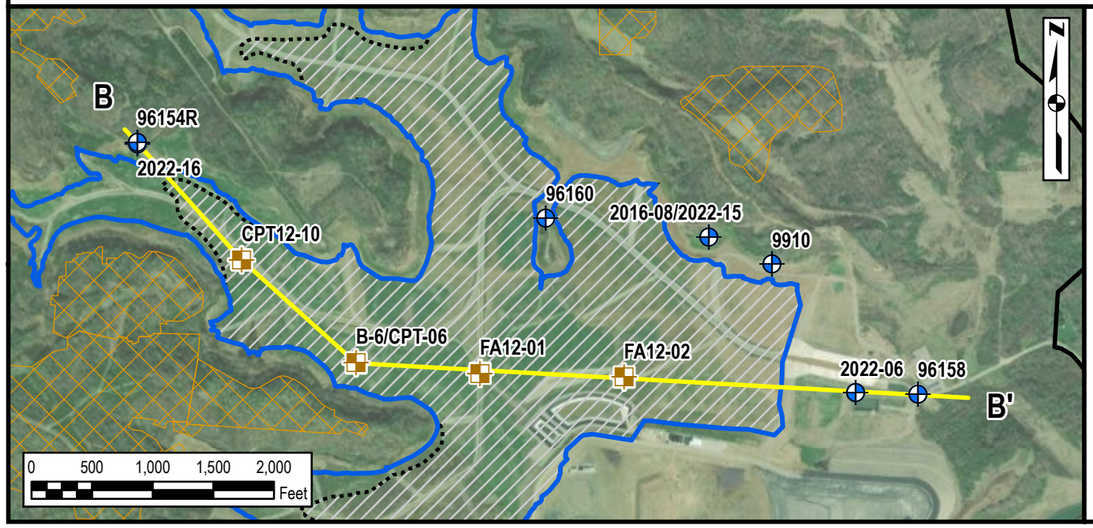
NOTE:

1. To more clearly illustrate geologic features, the Elevation (Y axis) scale is exaggerated 2.5x compared with the Distance Along Transect (X axis) scale, though both axes use feet as the unit of measurement.
2. Boring surface elevations, ground surface elevations and esitmated bedrock surface are projected along transect line.
3. The geology is generalized based on the lithology descriptions.
4. GWI piping shown to scale on inset figure depicting Landfill Liner System Components. GWI piping diameter exaggerated on Section to depict locations of piping infrastructure intersecting Section line.
5. Aerial Imagery from ESRI World Imagery Reproduced under license in ArcGIS 10.8.

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Legend

- Monitoring Well
- Soil Boring/CPT Location
- Surface Profile - 2022
- FAR Cover System
- Boring Trace
- Cross-section Transect
- Extent of Fly Ash
- Extent of FAR Cover System
- Historic Mining Area
- Site Boundary

Generalized Lithology

- Overburden
- Fly Ash
- Clay Core
- Fill
- Residual Clays
- Connellsville Sandstone
- Clarksburg Claystone
- Morgantown Sandstone
- Round Knob Shale
- Cow Run Sandstone
- Anderson/Bloomfield/Buffalo Clayshale

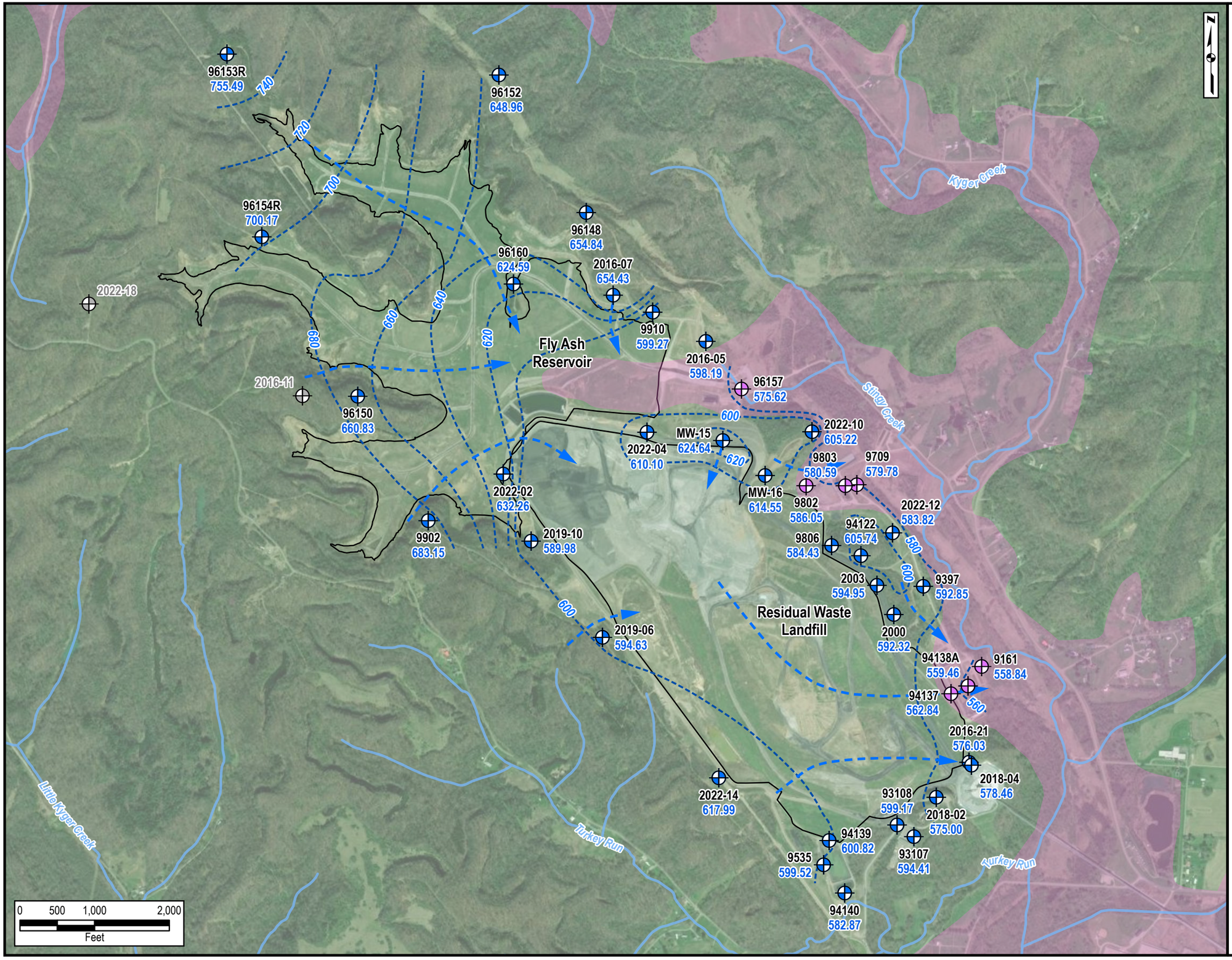
Figure 1-6: Geologic Cross Section B-B'
Gavin Power, LLC
Cheshire, Ohio

NOTE:

1. To more clearly illustrate geologic features, the Elevation (Y axis) scale is exaggerated 5x compared with the Distance Along Transect (X axis) scale, though both axes use feet as the unit of measurement.
2. Boring surface elevations, ground surface elevations and esitmated bedrock surface are projected along transect line.
3. The geology is generalized based on the lithology descriptions.
4. Aerial Imagery from ESRI World Imagery Reproduced under license in ArcGIS 10.8.

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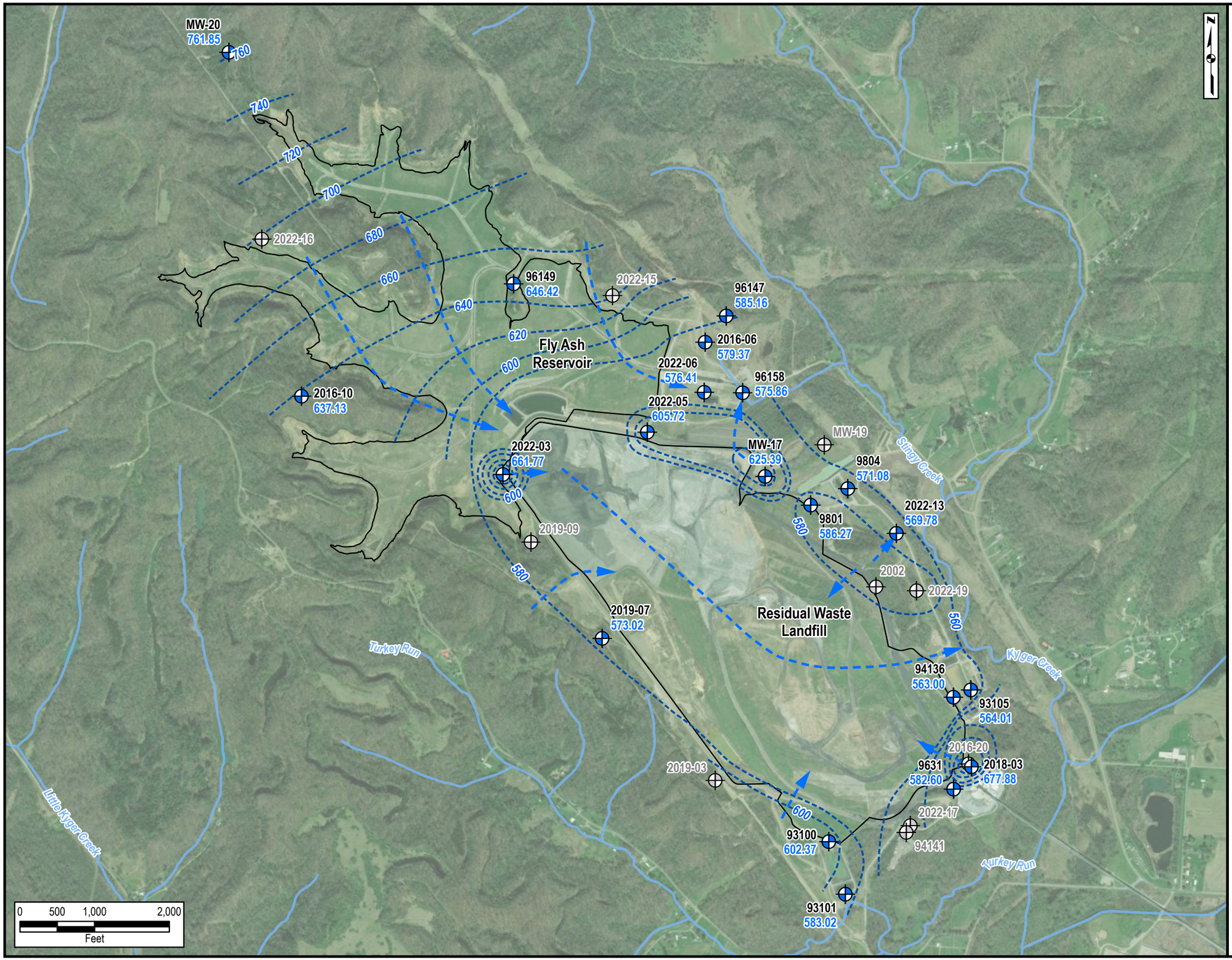
- Morgantown Sandstone Monitoring Well
- Morgantown Sandstone Monitoring Well - Low Recharge, Dry, Data Anomaly, or Not Gauged
- Alluvium Monitoring Well
- 605.82 Groundwater Elevation (ft)
- Spring 2024 Interpreted Groundwater Potentiometric Contour
- Spring 2024 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)

NOTES:

- Interpreted contours based on groundwater gauging conducted on 3/4/2024 and 3/5/2024.
- Some groundwater elevation contours were interpreted using historical groundwater trends in monitoring wells that were not gauged in March 2024.
- Where the Morgantown SS is absent, the contours represent the potentiometric surface in the alluvial aquifer because these aquifers are hydraulically connected.
- Interpreted groundwater flow directions include potential influence from GWIs.

Figure 1-7: Morgantown Sandstone Groundwater Flow Directions Spring 2024
Gavin Power, LLC
Cheshire, Ohio

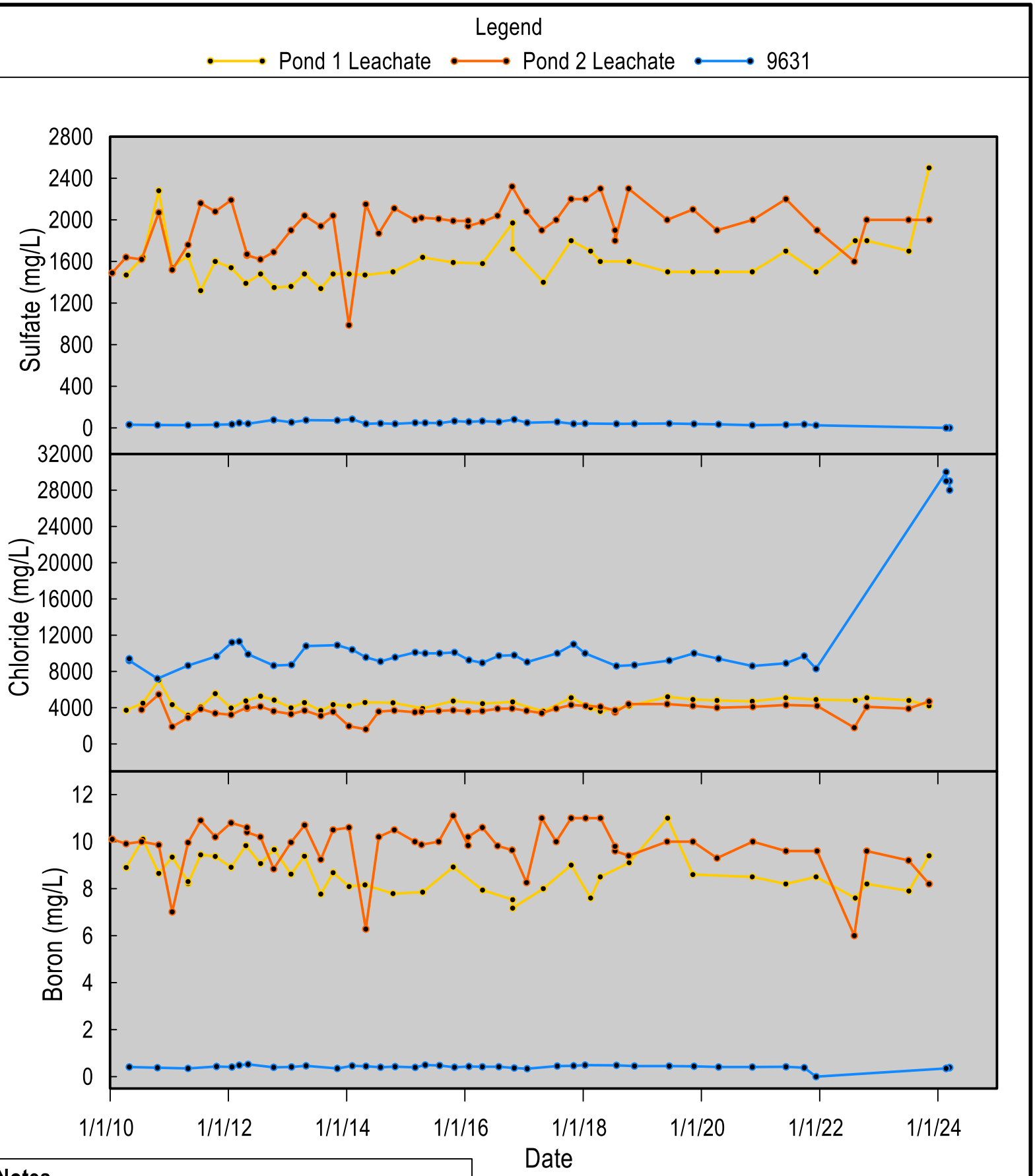
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NOTES:
- Cow Run Sandstone is present through entire site.
- Interpreted contours based on groundwater gauging conducted on 3/4/2024 and 3/5/2024.
- Some groundwater elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in March 2024.

Figure 1-8: Cow Run Sandstone Groundwater Flow Directions Spring 2024
Gavin Power, LLC
Cheshire, Ohio

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Notes

1. Date range January 2010 to March 2024.
2. Figure includes data collected under both Federal CCR Program and Ohio State Sampling Program.
3. Non-detects are plotted as zero.
4. Anomalous boron data for Pond 1 Leachate on 4/16/2020 omitted.

Figure 6-1. Boron, Chloride, and Sulfate in Brine Impacted Wells and Landfill Leachate
Gavin Generating Station
Cheshire, Ohio

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APPENDIX D GAVIN RESIDUAL WASTE LANDFILL AND FLY ASH POND SECOND SEMIANNUAL SAMPLING EVENT OF 2024 ASD REPORT

Second Semiannual Sampling Event of 2024 Alternate Source Demonstration Report

Gavin Residual Waste Landfill and Fly Ash Reservoir

PREPARED FOR
Gavin Power, LLC

DATE
31 January 2025

REFERENCE
0720782

SIGNATURE PAGE

Second Semiannual Sampling Event of 2024 Alternate Source Demonstration Report

Gavin Residual Waste Landfill and Fly Ash Reservoir

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FIGURE 1-8: COW RUN SANDSTONE GROUNDWATER FLOW DIRECTIONS – SPRING 2024

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ACRONYMS AND ABBREVIATIONS

Acronym	Description
AEP	American Electric Power Service Corporation
ASD	Alternate Source Demonstration
BAP	Bottom Ash Pond
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
cm/sec	centimeters per second
ERM	Environmental Resources Management, Inc.
FAR	Fly Ash Reservoir
Gavin	Gavin Power, LLC
GWI	Groundwater intercept
K	Hydraulic Conductivity
H2	Second Semiannual
mg/L	milligrams per liter
ODNR	Ohio Department of Natural Resources
ORSANCO	Ohio River Valley Water Sanitation Commission
Plant	General James M. Gavin Power Plant
SSI	Statistically significant increase
TDS	Total Dissolved Solids
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

1. INTRODUCTION

1.1 REGULATORY AND LEGAL FRAMEWORK

In accordance with Title 40 Code of Federal Regulations (CFR), Part 257, Subpart D – Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments (CCR Rule) – Gavin Power, LLC (Gavin) has been implementing the groundwater monitoring requirements of 40 CFR § 257.90 et seq. for its Residual Waste Landfill (RWL) and Fly Ash Reservoir (FAR) at the General James M. Gavin Power Plant (Plant) using a combined groundwater monitoring network for the RWL and FAR. Gavin calculated background levels and conducted statistical analyses for Appendix III constituents in accordance with 40 CFR § 257.93(h). Currently, Gavin is performing detection monitoring at the RWL and FAR in accordance with 40 CFR § 257.94.

Statistically significant increases (SSIs) over background concentrations were detected in one downgradient monitoring well for some Appendix III constituents for the second semiannual (H2) groundwater sampling event of 2024 and are explained in this Alternate Source Demonstration (ASD) Report. The second semiannual groundwater sampling event of 2024 was performed from September 10, 2024 to November 1, 2024. Review of data for quality assurance and statistical comparison was completed on December 16, 2024. Pursuant to 40 CFR § 257.94(e)(1), Gavin must establish an assessment monitoring program for the combined RWL/FAR groundwater monitoring system unless an ASD is completed and certified by a Professional Engineer within 90 days. Pursuant to 40 CFR § 257.94(e)(2), this ASD Report, which has been completed and certified by the January 31, 2025 deadline, will be included with the annual groundwater monitoring and corrective action report required under CFR § 257.90(e), which is due January 31, 2025.

An SSI for one or more Appendix III constituents is a *potential* indication of a release of constituents from a CCR unit to groundwater. In the event of an SSI, the CCR Rule provides that "… the owner or operator may demonstrate that a source other than the CCR unit caused the SSI over background levels for a constituent or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality…" (40 CFR § 257.94(e)(2)). If it is demonstrated that the SSI is the result of a source other than the CCR unit, then the CCR unit may remain in the Detection Monitoring Program instead of transitioning to an Assessment Monitoring Program. To implement this demonstration, an ASD must be made in writing and the accuracy of the information must be verified through certification by a qualified Professional Engineer (40 CFR § 257.94(e)(2)).

The United States Environmental Protection Agency (USEPA) guidance document, "Solid Waste Disposal Facility Criteria Technical Manual, EPA530-R-93-017, Subpart E" (USEPA 1993), specifies the following six lines of evidence that must be addressed to determine whether an SSI resulted from a source other than the regulated disposal unit:

- An alternative source exists;

- A hydraulic connection exists between the alternative source and the well with a statistically significant increase;
- Constituent(s) (or precursor constituents) are present at the alternative source or along the flow path from the alternative source prior to possible release from the unit;
- The relative concentration and distribution of constituents in the zone of contamination are more strongly linked to the alternative source than to the unit when the fate and transport characteristics of the constituents are considered;
- The concentration observed in groundwater could not have resulted from the unit given the waste constituents and concentrations in the unit leachate and wastes, and the site hydrogeologic conditions; and
- The data supporting conclusions regarding the alternative source are historically consistent with the hydrogeologic conditions and findings of the monitoring program.

Environmental Resources Management, Inc. (ERM) has prepared this ASD Report on behalf of Gavin to address each of these lines of evidence for the SSIs detected in groundwater collected from downgradient compliance wells at the RWL and FAR. The groundwater monitoring program and ASD have been prepared utilizing accepted practices incorporating regional information that has been confirmed with site specific measurements.

Some of the topics discussed in this report are also addressed in USEPA's November 22, 2022 Final Decision: Denial of Alternative Closure Deadline for General James M. Gavin Plant, Cheshire, Ohio (Final Decision). In other documents, Gavin has explained how the approaches described and documented in this report are consistent with USEPA regulations and guidance as well as with best engineering practices and judgment. Gavin has contested USEPA's findings in the Final Decision from a factual, technical and legal perspective. ERM notes that USEPA's findings and determinations in the Final Decision are the subject of pending litigation.

1.2 BACKGROUND

The Plant is a coal-fired generating station located in Cheshire, Gallia County, Ohio (Figure 1-1), and is bounded to the east by the Ohio River. The RWL and FAR are two of three CCR units at the Plant that are subject to regulation under the CCR Rule (the third unit is the Bottom Ash Pond [BAP] but that unit is not the focus of this report). The RWL is approximately 400 acres in size and is located about 1.25 miles northwest of the Plant (Figure 1-2). The CCR material disposed in the RWL is Flue Gas Desulfurization byproduct (consisting of scrubber cake, fly ash, and lime) and other approved materials (water treatment sludge, bottom ash, lime ball mill rejects, coal pulverizer rejects, and sand/moss from the vertical flow wetlands).

The FAR is approximately 300 acres in size and is located about 2.5 miles northwest of the Plant (Figure 1-2). From the mid-1970s until January 1995, fly ash was sluiced to the FAR and the settled CCR materials in the FAR were retained behind the Stingy Run Fly Ash Dam that formed the FAR. The FAR was closed in place, and the closure was completed in 2021. Closure was certified on July 30, 2021.

An updated combined groundwater monitoring system was certified in August 2021 to collectively monitor for potential releases from the RWL and FAR. Previously, Gavin maintained and monitored two separate (though adjacent) groundwater monitoring networks for the RWL and FAR, respectively. The combined monitoring network was certified on 31 August 2021 with completion of the Updated Groundwater Monitoring System Evaluation and Certification—40 CFR 257.91 (ERM 2021).

The combined network which monitors both the RWL (Figure 1-3) and FAR (Figure 1-4) currently includes 24 upgradient and 15 downgradient monitoring wells located in the Alluvium, Morgantown Sandstone, and Cow Run Sandstone. The upgradient wells are placed to accurately represent the quality of background groundwater that has not been affected by any potential leakage from the RWL and FAR units, while the downgradient wells in the network are positioned at the downgradient boundary of waste to detect potential release of CCR constituents from the CCR units into groundwater in the uppermost aquifer.

Consistent with the CCR Rule and with Gavin's Statistical Analysis Plan (ERM 2017), an interwell prediction limit approach was used to identify potential impacts to groundwater. Upper prediction limits were developed for the Appendix III parameters; in the case of pH, a lower prediction limit was also developed. Documentation of the development of the upper prediction limits and lower prediction limit is provided in the 2018 Alternate Source Demonstration for the RWL (ERM 2018b).

In 2022, six new monitoring wells were installed around the RWL and FAR to act as replacements for previously existing monitoring wells that were part of the certified monitoring network but that had to be removed as a result of a variety of factors, including landfill expansion activities. In addition, another eight new wells were installed in 2022 around the RWL and FAR to monitor groundwater in between existing monitoring well locations. Sampling is occurring at these wells, which are also being evaluated for addition to the monitoring network but have not yet been added to the certified network.

1.3 GEOLOGY AND HYDROGEOLOGY

The shallowest geologic materials at the FAR/RWL include mine spoil, fill, residual fine-grained soils, and weathered and fractured bedrock (ERM 2021a). Measured hydraulic conductivities for residual fine-grained soils range from 1.03×10^{-8} centimeters per second (cm/sec) to 5.60×10^{-9} cm/sec (AEP, 1993). The shallowest weathered and fractured bedrock present at the Site includes the Pomeroy Sandstone and Coal, the Pittsburgh Sandstone and Coal, the Bellaire Sandstone, and the Connellsville Sandstone units. Although some of these units may be partially or fully saturated in the vicinity of the FAR and RWL, these formations generally are not capable of yielding usable quantities of groundwater, and thus are not considered part of the uppermost aquifer at the FAR/RWL. In the vicinity of the Site, bedrock dips to the southeast at approximately 17 feet/mile (AEP 1993).

The Connellsville Sandstone is still present in portions of the ridges that surround the FAR valley and the RWL. However, the Connellsville Sandstone has been completely eroded in substantial

portions of the valley areas of the FAR, especially at the eastern extent of the FAR nearest the current extent of Stingy Run. The Connellsville Sandstone has also been partially or completely eroded in portions of the valley areas underlying the RWL.

Beneath the Connellsville Sandstone are the Clarksburg Red Beds, which is a regionally extensive aquitard (low-permeability rock layer) with a typical thickness of approximately 40 to 50 feet and average hydraulic conductivity values for the formation ranging from 2.1×10^{-7} cm/sec to 7.8×10^{-8} cm/sec (Geosyntec, 2012). The Clarksburg Red Beds hydraulically isolate the shallower bedrock formations from the underlying aquifers. The Clarksburg Red Beds have been observed to be partially or entirely eroded in portions of the valley areas of the FAR and RWL (Figures 1-5 and 1-6), especially in the eastern extent of the FAR valley areas. However, residual fine-grained soils generated in-situ by the weathering process are generally present in areas where erosion of the Clarksburg Red Beds has occurred. Based upon measured hydraulic conductivity values for the residual fine-grained soils (1.03×10^{-8} cm/sec to 5.60×10^{-9} cm/sec), these soils provide hydraulic separation similar to that provided by the Clarksburg Red Beds. Beneath the Clarksburg Red Beds are the Morgantown Sandstone and the Cow Run Sandstone. Together these units are interpreted as the uppermost aquifer beneath the RWL and FAR (Geosyntec 2016a; Geosyntec 2016b).

The Morgantown Sandstone is composed of two thin sandstone beds (upper and lower), which are separated by clay shale. The Morgantown Sandstone unit has a total average thickness of approximately 30 feet, and the upper and lower sandstone beds generally range in thickness from approximately three to seven feet. It has been documented through review of historical boring logs that the Morgantown Sandstone has been removed by erosion and is absent in portions of the Stingy Run and Kyger Creek valley areas. The Morgantown was also confirmed to be absent at recent boring 2022-06, which was advanced in 2022 in the Stingy Run valley at the northeastern end of the RWL (ERM 2024). Groundwater migrating east-southeast within the Morgantown Sandstone along the eastern portion of the RWL discharges to the alluvial aquifer located within the Stingy Creek and Kyger Creek valleys. Thus, the alluvial aquifer is also considered part of the uppermost aquifer where the Morgantown Sandstone is absent in these areas.

Below the Morgantown Sandstone is a unit of approximately 60 feet of interbedded claystone/clay shale and non-crystalline limestone layers, collectively known as the Round Knob Shale. These strata extend to the top of the underlying Cow Run Sandstone. Together, the residual fine-grained soils, the Clarksburg Red Beds, and the Round Knob Shale unit provide hydraulic separation from the aquifers underlying the RWL. Though the Clarksburg Red Beds have been partially or entirely eroded in portions of the FAR valley areas, the residual fine-grained soils and deeper Round Knob Shale unit provide hydraulic separation from the aquifers underlying the FAR similar to that provided by the collective lithologic units underlying the RWL.

Below the Round Knob Shale, the Cow Run Sandstone has an average thickness of 30 feet and is characterized regionally as a coarse-grained sandstone and sandy shale. The Cow Run Sandstone unit is continuous under the FAR/RWL and considered the base of the uppermost aquifer. Beneath the Cow Run Sandstone are the Portersville Limestone and the Anderson Clayshale which consist

primarily of shale, claystone, and clay shale (Geosyntec 2012). These low permeability formations are interpreted to be the lower hydraulic boundary of the uppermost aquifer.

1.3.1 GROUNDWATER FLOW

The removal of strip mine ponds, installation of groundwater intercept (GWI) drains, and placement of the composite liner under the RWL resulted in decreased recharge to the Morgantown Sandstone and Cow Run Sandstone. The changes during and post-construction were interpreted to result in the decline of potentiometric elevations up to 10 feet, which is similar to observed declines at another AEP residual waste landfill (AEP 1993).

At a regional scale, groundwater within the Morgantown Sandstone and Cow Run Sandstone generally flows from the northwest to the southeast under the FAR and the RWL toward the Ohio River, which is the primary regional discharge boundary for groundwater. At Site-scale, several factors influence groundwater flow directions in the area of the FAR/RWL, including topographic ridges and suppression of infiltration related to the FAR cap and the liner system of the RWL. Ridges along the western, eastern, and southern perimeters of the RWL constitute areas of recharge. Due to removal of strip mine ponds, installation of GWI drains, and placement of the composite liner, recharge to the center of the RWL has been cut off (AEP, 1993). Recent potentiometric surface maps, including those prepared for this report (Figures 1-7 and 1-8), incorporate not only the information from existing monitoring wells but also consider additional relevant data including original land surface topography, current land surface topography, landfill expansion, remaining recharge areas outside of the landfill expansion, and any effect of the GWIs.

1.3.1.1 GROUNDWATER FLOW ALONG THE WESTERN BOUNDARY OF THE RWL/FAR

To the west of the FAR/RWL, groundwater flows from west to east before joining the overall flow pattern to the southeast. The interpretation of west to east groundwater flow at the western boundary of the RWL is based on specific past and current observations along the western boundary. Groundwater flow maps prepared for the 1993 RWL Permit to Install (AEP, 1993; Figure No. 21) and the 1999 reissued Potentiometric Map of the RWL (AEP Drawing No. 3J of Drawing 12-30729-5) both interpreted groundwater flow from west to east in the Morgantown from a recharge area near wells 94131 toward the historical valley near Pond 1. The potentiometric contours in AEP Figure No. 21 and AEP Drawing No. 3J of Drawing 12-30729-5 also indicate a recharge area farther north, near wells 93102 and 94125, with components of groundwater flow to the southeast and east along the northwestern RWL boundary.

The 1960 USGS topographic map shows a topographic ridge existed east of Turkey Run Road, in the area that would become the western boundary of the RWL (USGS, 1960) The correlation of the potentiometric highs on the 1993 and 1999 figures referenced above and topographic highs suggests the area east of Turkey Run Road was a recharge area prior to the construction of the RWL. The USGS quadrangle notes the presence of historical mines in this area, which is interpreted to enhance recharge along ridges due to mine collapse and the presence of near-vertical fractures. While there has been some modification of the land surface in recent years

associated with the westward expansion of the RWL, the current land surface topography still consists of a ridge between the RWL and Turkey Run Road, as shown in Geologic Cross Section A-A' (Figure 1-5).

The RWL is located on the eastern side of this surface and groundwater ridge, so groundwater flow is interpreted to be from west to east at the western edge of the RWL, consistent with gravity-driven groundwater flow from areas of higher topographic relief to areas of lower topographic relief (Toth, 2009). This west to east flow pattern indicated in the 1993 interpretation is expected to be enhanced due to the reduction in recharge caused by removal of strip mine ponds that had acted as local recharge points within and near the RWL, installation of GWI drains which currently facilitate the movement of shallow groundwater to areas outside the RWL, and installation of the RWL liner which by design inhibits the downward migration of water (AEP, 1993).

Groundwater flow maps provided in the 2018 through 2023 Annual Groundwater Monitoring and Corrective Action Reports consistently show an easterly flow component in the Morgantown and Cow Run (ERM, 2019; ERM, 2020; ERM, 2021b; ERM, 2022; ERM, 2023; ERM, 2024). Justification for this interpretation based on potentiometric elevation data includes the following:

- The potentiometric surface at Morgantown well 2019-02 was higher than nearby Morgantown wells 2019-06 and 9535 in five out of six gauging events conducted between 2020 and 2022. The physical configuration of the wells and the measured piezometric elevations indicate an eastward groundwater flow direction in the Morgantown on the western side of the RWL.
- The potentiometric surface at Cow Run monitoring well 94126 was higher than nearby well 93100 in five out of six gauging events conducted between 2018 and 2019. The physical configuration of the wells and the measured piezometric elevations indicate an eastward groundwater flow direction in the Cow Run on the western side of the RWL.
- A comparison of potentiometric elevation data at wells 94125 and 2019-06 also supports the eastward flow interpretation. Well 94125 was abandoned in 2019 due to RWL expansion and replaced in 2020 by 2019-06, which was located 450 feet to the west, outside the new boundary of waste. The average potentiometric elevation at 94125 from 2013 to 2019 was 589.47 feet above sea level and the average elevation at 2019-06 from 2020 to 2023 is 601.79 feet above sea level. The 12.32-foot difference in average elevation over several years generally supports the interpretation of groundwater flow from west to east.

1.3.1.2 GROUNDWATER FLOW ALONG THE EASTERN BOUNDARY OF THE RWL/FAR

The interpretation of groundwater divides east of the RWL eastern waste boundary and within remnant highwalls (*e.g.*, near wells 94122, MW-15, and MW-16) is based on specific past and current observations along the eastern boundary, similar to those used to assess the groundwater divide along the western boundary of the RWL. The groundwater flow map prepared for the 1993

RWL PTI (AEP, 1993; Figure No. 21) interpreted radial groundwater flow in the Morgantown on the eastern side of the RWL from a recharge area near historic well 94122 and existing well 2001. This radial flow pattern is indicative of a recharge area and existed prior to the construction of the RWL.

The 1960 USGS topographic map shows a topographic ridge existed on the eastern boundary of the RWL at historic well 94122 and existing well 2000 (USGS, 1960). A ridge also ran northwest near the former FAR overflow spillway towards wells 2022-04 and 2022-05. Potentiometric highs were documented both on the eastern side of the future RWL near where the Stacker Pad currently exists, and north of where Pond 1 currently exists (AEP, 1993; Drawing No. 3J of Drawing 12-30729-5). The correlation of the potentiometric highs and topographic highs suggests that these areas were recharge areas prior to the construction of the RWL. The USGS quadrangle notes the presence of historical strip mines in this area, which may have enhanced recharge along ridges due to mine collapse and the presence of near-vertical fractures. While there has been some modification of the land surface in recent years associated with the expansion of the RWL, the current land surface topography still consists of a ridge along the eastern and northeastern sides of the RWL.

The groundwater divide prevents groundwater under the RWL from flowing towards the east in this area. West of the hydraulic divide located on the eastern side of the RWL, groundwater flow is interpreted to be from east to west before turning and flowing to the southeast. This east-to-west flow pattern was and is expected to be enhanced from 1993 interpretations due to the removal of strip mine ponds, installation of GWI drains, and placement of the composite liner that cut off recharge to the aquifer beneath the RWL (AEP, 1993).

1.3.1.3 REFINEMENT IN INTERPRETATION OF GROUNDWATER FLOW BENEATH THE RWL/FAR

In 2018, federal and state groundwater potentiometric elevation data sets for monitoring wells of the Morgantown and Cow Run were combined to increase spatial resolution and limit uncertainty in the interpretation of groundwater flow direction. This assessment identified: (i) the area of low hydraulic pressure along the axis of the landfill; (ii) groundwater flow from west to east on the western boundary; and (iii) a potentiometric high on the northeastern boundary of the RWL. The updated interpretation of regional groundwater flow in the Morgantown and Cow Run was from northwest to southeast towards the Ohio River. The overall interpretation of groundwater flow in the vicinity of the RWL/FAR is strongly influenced by site geology, pre-construction topography, and site preparation as hydraulic information is no longer able to be obtained from within the RWL due to the liner system or from within the FAR due to the cap.

Generally, the interpretations of groundwater flow under the RWL have been relatively consistent with overall flow towards the southeast. However, recent maps use higher-resolution datasets and differ in some ways from the flow directions and hydraulic features indicated in the 2012 PTI, such as the aforementioned ridge (Geosyntec, 2012). As shown in the 2018 through 2023 Annual GWMCA Reports, existing wells located along the eastern and northeastern boundary include couplet wells 2002 and 2003, and 2022-04 and 2022-05, located in the Morgantown and Cow

Run, respectively. At these locations, the Morgantown has a higher potentiometric surface than the Cow Run. These downward gradients demonstrate the presence of recharge areas. Groundwater flow direction maps prepared for the 2018-2023 Annual GWMCA Reports consistently show groundwater mounds and radial flow in the Morgantown in this area.

1.4 2024 H2 GROUNDWATER SAMPLING EVENT

The data from the second semiannual groundwater sampling event from 2024 were compared to the upper and lower prediction limits for the Appendix III parameters, and SSIs for Appendix III analytes were identified in one well. Tables 1-1 and 1-2 summarize occurrences of SSIs from the H2 2024 sampling event.

TABLE 1-1 NO SSIS IN MORGANTOWN SANDSTONE AND ALLUVIUM DOWNGRADIENT MONITORING WELLS

Analyte	Monitoring Well								
	96157	94137	9802	2016-05	2000	2018-02	2018-04	93108	9806
Boron	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Calcium	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Chloride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Fluoride	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
pH, field	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
Sulfate	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ
TDS	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ	ϕ

Notes: ϕ = No SSI; SSI = statistically significant increase; TDS = Total Dissolved Solids
Results from groundwater samples collected in September 2024

TABLE 1-2 SSIS IN COW RUN SANDSTONE DOWNGRADIENT MONITORING WELLS

Analyte	Monitoring Well				
	2016-06	2018-01	2018-03	94136	9631
Boron	ϕ	NS	ϕ	ϕ	ϕ
Calcium	ϕ	NS	ϕ	ϕ	X
Chloride	ϕ	NS	ϕ	ϕ	X
Fluoride	ϕ	NS	ϕ	ϕ	ϕ
pH, field	ϕ	NS	ϕ	ϕ	ϕ
Sulfate	ϕ	NS	ϕ	ϕ	ϕ
TDS	ϕ	NS	ϕ	ϕ	X

Notes: ϕ = no SSI; X = SSI; NS= not sampled; SSI = statistically significant increase; TDS = Total Dissolved Solids
Results from groundwater samples collected in September and October 2024
[1] Well 2018-01 was abandoned in 2022. A replacement monitoring well is currently being evaluated.

This ASD Report identifies the regional discharge of naturally occurring brine originating from bedrock as the source of calcium, chloride, and total dissolved solids (TDS) detected in groundwater collected from monitoring well 9631. Supporting information and additional discussion of the lines of evidence are presented in subsequent sections of this ASD Report.

2. DESCRIPTION OF ALTERNATE SOURCES

Regional Brine is identified as the alternate source for the calcium, chloride, and TDS that are observed at the RWL/FAR. This a due to naturally occurring brine originating in/from bedrock (i.e., Cow Run Sandstone) as observed in shallow groundwater in and around Gavin.

A summary of regional brine and its influence on groundwater quality is provided below.

2.1 REGIONAL BRINE

Naturally occurring brine, which is known in the Ohio River Valley to have elevated levels of calcium, chloride, and other trace elements, exists in the subsurface (Stout et al. 1932; ORSANCO 1984; ODNR 1995). The discharge of brines is seen at a regional scale, with shallow wells near the Ohio River observing brine impacts because of the vertical head gradient driving overall flow upwards from bedrock to alluvium (USGS 1997). The Cow Run Sandstone is the shallowest sandstone of any importance in Ohio where brine of marine origin has been observed (Phalen 1919; Stout et al. 1932). Brine was discovered at the land surface approximately 10 miles southwest of the Plant in Gallipolis, Ohio and was utilized for the commercial production of salt beginning in 1807. This commercial production was enhanced by advancing a boring to a depth of 100 feet below ground surface, which resulted in a brine much stronger than found at the land surface (Stout et al. 1932). Naturally occurring brine was also identified at the land surface in Jackson, Ohio approximately 30 miles west of the Plant (ODNR 1995). The regional presence of shallow brine indicates the potential for naturally occurring brine to contribute Appendix III constituents in groundwater at the Plant. Evidence of brine impacts near the Plant includes specific conductivity measurements at several Cow Run Sandstone monitoring wells upgradient of the RWL and FAR (2016-10, 2019-07, 2019-09) that are consistently greater than 30,000 µS/cm and reach as high as 50,062 µS/cm at monitoring well 2019-07. For reference, the approximate specific conductivity of seawater is 50,000 µS/cm (USGS 2019). The same upgradient wells have historically contained elevated levels of constituents like calcium and chloride which range as high as 1,200 mg/L and 23,000 mg/L, respectively.

Site specific evidence on the presence of brine and the constituents present within brine is discussed in Section 4.

3. HYDRAULIC CONNECTIONS TO THE ALTERNATE SOURCES

Explanations of the hydraulic connections between potential alternate sources and downgradient wells at the RWL/FAR were provided in the first ASD Reports for the FAR and RWL (ERM 2018a, ERM 2018b) and are summarized below. Groundwater potentiometric contour maps for the Morgantown and Cow Run Sandstone are depicted in Figures 1-7 and 1-8, respectively.

3.1 HYDRAULIC CONNECTION TO REGIONAL BRINE

Regional groundwater within the fractured sedimentary bedrock in the Ohio River Valley generally flows from areas of higher topographic elevation towards areas of lower elevation, ultimately discharging to the Ohio River (ORSANCO 1984). Precipitation infiltrates the land surface to recharge the underlying aquifers below, and the flow of groundwater within these aquifers is primarily driven by the gravitational force on groundwater (differences in hydraulic head) within the bedrock. The Cow Run Sandstone extends west of the RWL/FAR where naturally occurring brine (with elevated calcium, chloride, and TDS) is known to impact Cow Run groundwater (Phalen 1919, Stout et. al. 1932). As depicted in Figures 1-7 and 1-8, the Morgantown and Cow Run under the southeastern portion of the FAR and under the RWL contain a region of lower hydraulic pressure in comparison to the surrounding areas. The forested and pastured areas surrounding the FAR and RWL are more permeable and exhibit greater infiltration than the FAR and RWL, which have either an engineered cap (FAR) or liner (RWL) designed to reduce or eliminate recharge to the underlying aquifers. Thus the pathway for regional groundwater flows through the fractured bedrock from regions surrounding the RWL/FAR to regions of lower pressure south and east of the RWL and eventually toward the Ohio River. As described in Section 2, Cow Run monitoring wells 2016-10, 2019-07, and 2019-09, which are hydraulically upgradient of the RWL and FAR exhibit elevated specific conductivity measurements, consistent with regional observations of brine. Based on these considerations, the fractured rock of the sandstones is hydraulically connected to brine, which is the alternate source of calcium, chloride, and TDS.

3.1.1 GROUNDWATER FLOW RATES

Packer tests were completed in 2012 to assess hydraulic conductivity for locations in both the Morgantown and Cow Run Sandstone around the northern portion of the RWL (AEP and Geosyntec 2012). The range of hydraulic conductivity values from the packer tests in the Morgantown and Cow Run are provided in Table 3-1.

TABLE 3-1: ESTIMATED HYDRAULIC CONDUCTIVITY VALUES FOR MORGANTOWN AND COW RUN SANDSTONE

	Average K	Low K	High K
Morgantown (Geosyntec 2012)	7.18 x 10^{-5} cm/sec	2.2 x 10^{-8} cm/sec	4.6 x 10^{-4} cm/sec
Cow Run (Geosyntec 2012)	2.92 x 10^{-5} cm/sec	5.0 x 10^{-8} cm/sec	5.9 x 10^{-4} cm/sec

Notes: cm/sec = centimeters per second; K = hydraulic conductivity
Geosyntec 2012 values derived from packer tests (10-foot interval) completed in boreholes across mainly the northern part of the RWL.

The velocity of groundwater flowing through the Morgantown Sandstone was estimated in 2024 based on the measured horizontal hydraulic gradient (0.010 feet/feet), estimated hydraulic conductivity of 7.18 x 10^{-5} cm/sec (AEP and Geosyntec 2012), and an estimated effective porosity value of 0.01 for fractured bedrock. The estimated groundwater velocity calculated is approximately 77 to 79 feet/year (ERM 2025).

The velocity of groundwater flowing through the Cow Run Sandstone was estimated for 2024 based on the measured horizontal hydraulic gradient (0.010 feet/feet), the estimated hydraulic conductivity of 2.92 x 10^{-5} cm/sec (AEP and Geosyntec 2012), and an effective porosity value of 0.01 for fractured bedrock. The estimated groundwater velocity calculated is approximately 31 to 32 feet/year (ERM 2025).

Fractures observed at the site vary in frequency, distribution, and orientation as seen by the variability in monitoring well recharge rates and the measured hydraulic conductivity (Table 3-1). Groundwater flow is expected to occur primarily through the fractures, as the porosity of the fractures is expected to be much greater than the porosity of the rock matrix. Mine-roof collapse in underground mines commonly causes the overlying rocks to settle and fracture (AEP 1993). This settling may cause subsidence and the vertical propagation of extensive fractures to the land surface. Vertical seepage can also occur to lower aquifers along these steeply inclined stress relief fractures (AEP 1993). As such, areas of the Site that were previously mined, including the ridges surrounding the RWL and FAR, are expected to act as recharge areas.

4. CONSTITUENTS ARE PRESENT AT THE ALTERNATE SOURCES OR ALONG THE FLOW PATHWAYS

Regional brine is identified as the source of calcium, chloride, and TDS in RWL/FAR downgradient groundwater. Groundwater quality at the RWL/FAR is also influenced by external sources, as described in Sections 2, 3, and 7.

4.1 REGIONAL BRINE

Regional brine, as discussed above, is present in the area of the Plant and locally in bedrock under the RWL/FAR. Federal monitoring wells 2019-07 and 2019-09, which were installed upgradient of the RWL in Cow Run Sandstone, have chemical signatures indicating brine. In addition to the brine signatures observed in upgradient RWL wells, brine signatures have also been detected in Cow Run wells located at the BAP. At the BAP, concentrations of calcium, chloride, fluoride, and TDS are generally higher, and in some cases one to two orders of magnitude higher in bedrock than in the overlying alluvial aquifer, consistent with a regional brine signature. The ranges for calcium, chloride, and TDS in upgradient Morgantown groundwater (2019-02 and 2019-06), upgradient Cow Run groundwater (2019-07 and 2019-09), and brine-impacted wells located at the BAP (BAC-09, BAC-11, BAC-13, BAC-19) are presented in Table 4-1.

TABLE 4-1 CONCENTRATIONS IN ON-SITE BRINE IMPACTED BEDROCK GROUNDWATER

Analyte	Units	Upgradient Morgantown Groundwater at the RWL	Upgradient Cow Run Groundwater at the RWL	Bedrock Groundwater at the BAP
Calcium	mg/L	27-310	1,200	100-2,900
Chloride	mg/L	110-12,000	22,000-23,000	1,000-25,000
TDS	mg/L	1,300-14,000	29,000-31,000	1,300-35,000

Notes: BAP = Bottom Ash Pond; mg/L = milligrams per liter; RWL = Residual Waste Landfill; TDS = total dissolved solids
Upgradient Morgantown Groundwater at the RWL includes data from monitoring wells 2019-02 and 2019-06 and represents a range of values obtained from September 2020 to February 2024.
Upgradient Cow Run Groundwater at the RWL includes data from monitoring wells 2019-07 and 2019-09 samples collected in September 2024.
Bedrock Groundwater at the BAP includes data from monitoring wells BAC-09, BAC-11, BAC-13, BAC-19 samples collected in October 2024.

Based on a review of permit applications for historical oil and gas wells installed within the Gavin property by prior owners, the Ohio Department of Natural Resources (ODNR) routinely required applicants to identify the company responsible for collecting, transporting, and disposing of salt water to be produced by the proposed well. Oil and gas wells in the vicinity of the Gavin plant were typically drilled to a depth of approximately 1,800 feet below ground surface and recovered brine was temporarily stored in pits at the wellsite prior to offsite disposal. In addition, the

permits demonstrate that the boreholes were typically not sealed below 250 feet below ground surface if oil and gas were not found, which would leave an unsealed borehole that could allow the upward migration of brine to shallower strata, including the Cow Run. These ODNR records demonstrate the naturally occurring presence of brine at the Gavin property in geologic strata located beneath the Cow Run Sandstone and the potential for upward migration of brine through unsealed boreholes (ODNR 2024).

The elevated concentrations of calcium, chloride, and TDS in the upgradient bedrock groundwater indicate that these constituents are present in brine at the regional level and along flow paths to Cow Run wells at the Gavin Plant.

5. LINKAGES OF CONSTITUENT CONCENTRATIONS AND DISTRIBUTIONS BETWEEN ALTERNATE SOURCES AND DOWNGRADIENT WELLS

5.1 REGIONAL BRINE

As discussed in Sections 2 and 4, the concentrations of calcium, chloride, and TDS are elevated in regional brine. Table 4-1 demonstrates that the concentration of calcium, chloride, and TDS are higher in Cow Run groundwater upgradient of the RWL than in Morgantown groundwater in the area. This is indicative of a source emanating from a deeper stratum (e.g. where brine is found). As demonstrated in Section 4, oil & gas well permits indicate that brine is present in sandstone strata under the RWL/FAR.

Regionally, concentrations of calcium exceeding 10,000 mg/L, chloride exceeding 50,000 mg/L, and TDS exceeding 100,000 mg/L have been observed in Ohio brines (Stout et. al. 1932). Locally, the concentrations of calcium, chloride, and TDS observed in groundwater from monitoring well 9631 are consistent with upgradient wells impacted by regional brine, as summarized in Table 5-1. As described in Section 3, the pathway for regional groundwater follows hydraulic pressure gradients through the fractured Cow Run Sandstone from regions located north, west and southwest of the RWL/FAR, to the southern and eastern regions toward the Ohio River. As described in Section, 3.1.1, hydraulic conductivity of the underlying bedrock varies at the site, resulting in brine impacts being localized to individual zones. Thus, there is a well-documented regional source of brine, brine impacts are detected at upgradient wells at the Site, hydraulic pathways exist from deeper to shallower strata and the similarity of the calcium, chloride, and TDS concentrations between monitoring well 9631 and upgradient well 2019-07 demonstrate the linkage of constituent concentrations between the alternate source (brine) and downgradient wells.

TABLE 5-1: COMPARISON OF BRINE IMPACTED BEDROCK TO DOWNGRADIENT WELL 9631

Analyte	Units	Maximum Brine-Impacted Groundwater in Upgradient Bedrock RWL/FAR (As measured at 2019-07)	Monitoring Well 9631
Calcium	mg/L	1,200	1,400
Chloride	mg/L	23,000	29,000
TDS	mg/L	31,000	41,000

Notes: RWL/FAR = Residual Waste Landfill/Fly Ash Reservoir; mg/L = milligrams per liter
Results from groundwater samples collected in September 2024

6. DATA DOES NOT INDICATE THAT THE RWL/FAR IS THE SOURCE

6.1 GEOCHEMICAL SIGNATURES

The geochemical fingerprints of landfill leachate from the RWL and downgradient well 9631 were evaluated using the concentrations of Appendix III parameters. Landfill leachate is characterized by elevated concentrations of boron, chloride, and sulfate – concentrations of these parameters in groundwater from well 9631 and leachate from Ponds 1 and 2 are shown in Figure 6-1. These parameters were selected due to their elevated concentrations in site landfill leachate, their elevated solubility in water, limited potential for sorption, and limited potential for transformations due to changes in redox conditions.

The samples presented in these time series plots were collected from 2010 through 2024. The primary observations based on these plots are the following.

- Sulfate is consistently one-to-two orders of magnitude higher in landfill leachate than in groundwater from monitoring well 9631. The increasing concentrations of calcium, chloride, and TDS in groundwater from well 9631 were not accompanied by an increase in sulfate concentrations. Given the elevated concentrations of sulfate in landfill leachate, a release from the landfill could not occur without a concurrent increase in the concentration of sulfate in downgradient wells.
- In contrast, chloride has been consistently higher at monitoring well 9631 than in landfill leachate. Monitoring well 9631 was not sampled in 2022 or 2023 due to malfunctions with the pump. After a new pump was installed in December 2023, samples were collected in February and March of 2024. Chloride concentrations increased sharply compared to data collected in 2021 or earlier. A release of landfill leachate and subsequent mixing with groundwater would result in a decrease in the concentration of chloride in groundwater from monitoring well 9631, which did not occur.
- Boron is consistently an order of magnitude higher in landfill leachate than in groundwater collected from monitoring well 9631. The increasing concentrations of calcium, chloride, and TDS in groundwater from well 9631 were not accompanied by an increase in boron concentrations. Boron is expected to act as a conservative tracer due to its high solubility and mobility in water. Therefore, a release of landfill leachate would result in an increase in boron concentrations, which was not observed from 2010 through spring 2024.

A release from the RWL/FAR would result in increasing concentrations of boron and sulfate and decreasing concentrations of chloride at monitoring well 9631. In contrast, chloride has increased since 2021 while boron and sulfate have remained stable. Further, a release from the RWL/FAR would need to migrate from the surface through the Morgantown Sandstone before concentrations would increase in the Cow Run Sandstone. SSIs were not detected in any downgradient wells screened in the Morgantown Sandstone.

Based on the data summarized above and the chemical signatures of the groundwater at issue, the RWL/FAR is not deemed to be the source of the SSIs.

7. ALTERNATE SOURCE DATA ARE HISTORICALLY CONSISTENT WITH HYDROGEOLOGIC CONDITIONS AND FINDINGS OF THE MONITORING PROGRAM

7.1 REGIONAL BRINE

The existence of Regional Brine in the area surrounding the plant is supported by historical studies and data. Regional groundwater flow regimes through fractured bedrock upgradient of the RWL/FAR were established after the last deglaciation, which occurred approximately 14,000 years ago (Hansen 2017). Enhancement of transmissivity in Ohio River Valley from stress-relief fracturing in bedrock provides conditions for bedrock to be interconnected to coarse glacial outwash alluvial deposits (USGS 1981; USGS 1997). Regional groundwater within the fractured sedimentary bedrock in the Ohio River Valley generally flows from areas of higher topographic elevation towards areas of lower elevation, ultimately discharging to the Ohio River (ORSANCO 1984). Assuming a conservatively high effective porosity of 1 percent, estimated groundwater velocity values for the Morgantown Sandstone and Cow Run Sandstone units are approximately 77 to 79 feet per year and 31 to 32 feet per year, respectively. These flow rates would allow ample time for groundwater to migrate from upgradient regional background sources to Plant property. The data supporting these conclusions are historically consistent with hydrogeologic conditions and findings of the RWL/FAR monitoring program.

The discharge of brines is seen at a regional scale along the Ohio River with shallow wells near the Ohio River observing saltwater impacts; whereas, further from the Ohio River shallow wells report little to no brine impacts (USGS 1997). TDS concentrations observed in bedrock wells around the RWL/FAR are consistent with observations seen at brine-freshwater mixing zones at other brine-impacted sites (Yager et al. 2017). The regional and site-specific data are in strong agreement, therefore, and lead to the conclusion that regional brines are discharging under the RWL/FAR and mixing with Cow Run groundwater underneath the RWL/FAR.

8. CONCLUSIONS

The SSIs identified in this ASD Report are based on results from downgradient RWL/FAR monitoring well samples collected in September/October 2024. Review of data for quality assurance and statistical comparison was completed on December 16, 2024. In response to the SSIs, this ASD Report was prepared within the required 90-day period in accordance with 40 CFR § 257.94(e)(2).

SSIs in the downgradient RWL/FAR monitoring well 9631 have been determined to result from alternate sources based on analysis of the gathered data: discharge of regional brine present in bedrock. Table 8-1 summarizes the six lines of evidence for each of the SSIs.

In conclusion, the RWL/FAR is not the source of the SSIs associated with the second semiannual sampling event groundwater results for 2024. Thus, Gavin will continue detection monitoring at the RWL/FAR in accordance with 40 CFR § 257.94(e)(2).

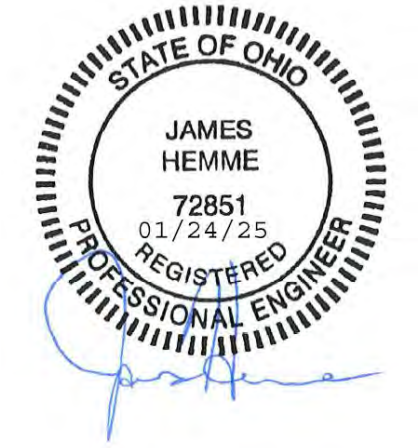
TABLE 8-1: RWL/FAR ASD SUMMARY

Analyte	SSI Location	Six Lines of Evidence from USEPA Guidance					
		Alternate Source	Hydraulic Connection	Constituent Present at Source or along Flow Path	Constituent Distribution More Strongly Linked to Alternate Source	Constituent Could Not Have Resulted from the RWL/FAR	Data Are Historically Consistent with Hydrogeologic Conditions
Calcium	9631	Regional Brine	X	X	X	X	X
Chloride	9631	Regional Brine	X	X	X	X	X
TDS	9631	Regional Brine	X	X	X	X	X

Notes: RWL/FAR = Residual Waste Landfill/Fly Ash Reservoir; SSI = statistically significant increase; USEPA = United States Environmental Protection Agency.

9. PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I, or an agent under my review, have prepared this Alternate Source Demonstration Report for the Residual Waste Landfill/Fly Ash Reservoir and it meets the requirements of 40 CFR § 257.94(e)(2). To the best of my knowledge, the information contained in this Report is true, complete, and accurate.



James A. Hemme, P.E.
State of Ohio License No.: 72851

Date: 1/24/25

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FIGURES

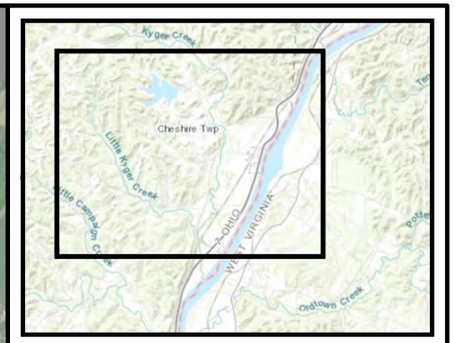

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Ohio
Pennsylvania
West Virginia
Kentucky
General James M. Gavin Plant
Toledo
Cleveland
Akron
Youngstown
Canton
Mansfield
Columbus
Dayton
Springfield
Cincinnati
Fort Wayne
Indianapolis
Pittsburgh
Parkersburg
Huntington
Marietta
Wheeling
Morgantown
Fairmont
Clarksburg
Weirton
Steubenville
Zanesville
Portsmouth
Ashland
Lima
Findlay
Fremont
Sandusky
Elyria
Lorain
Medina
Wooster
Mt Vernon
Marion
Delaware
Newark
Lancaster
Chillicothe
Athens
Middletown
Hamilton
Richmond
Muncie
Anderson
Kokomo
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Goshen
Warsaw
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Wabash
Decatur
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Wyandot
Hancock
Putnam
Allen
Van Wert
Paulding
Noble
De Kalb
Whitley
Kosciusko
Marshall
Fulton
Miami
Wells
Adams
Jay
Blackford
Grant
Howard
Tipton
Madison
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Randolph
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Indiana
Michigan
Pennsylvania
West Virginia
Maryland
Erie
Lake Erie
Pelee Passage
Scudder
Grand Lake
Mosquito Creek Lake
Berlin Lake
Meander Reservoir
Pymatuning Lake
Raccoon Creek State Park
Beaver
Lawrence
Butler
Armstrong
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Warren
Forest
Venango
Clarion
Jefferson
Elk
Cameron
Clearfield
Cambria
Somerset
Bedford
Fulton
Huntingdon
Blair

Fly Ash Reservoir

Residual Waste Landfill

Bottom Ash Pond

Ohio River



Legend

- Bottom Ash Pond
- Fly Ash Reservoir
- Residual Waste Landfill
- Property Boundary

NOTES:
1. Aerial Imagery: ESRI World Imagery
   Reproduced under license in ArcGIS 10.8

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Figure 1-2: RWL and FAR Locations
Gavin Generating Station
Cheshire, Ohio

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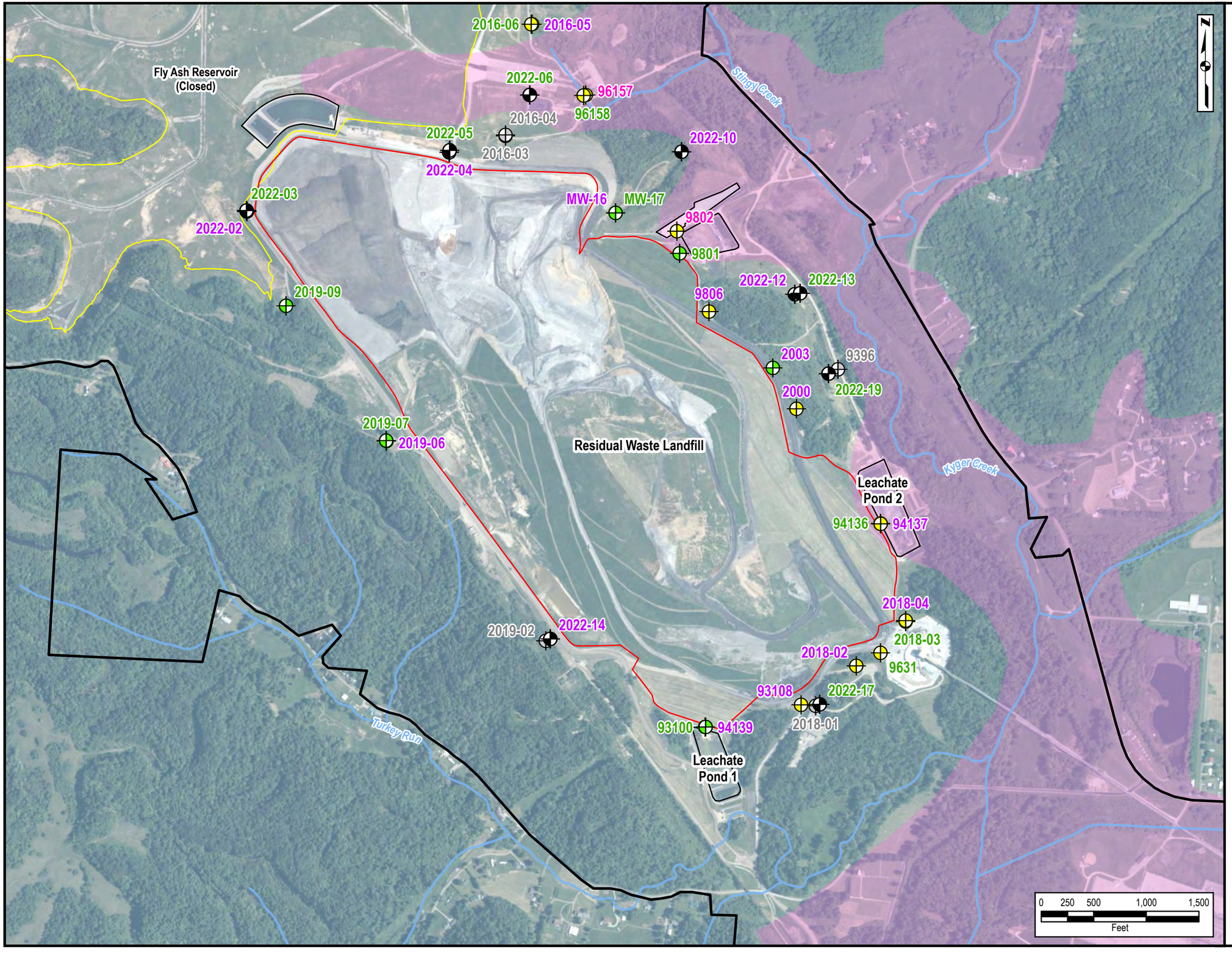
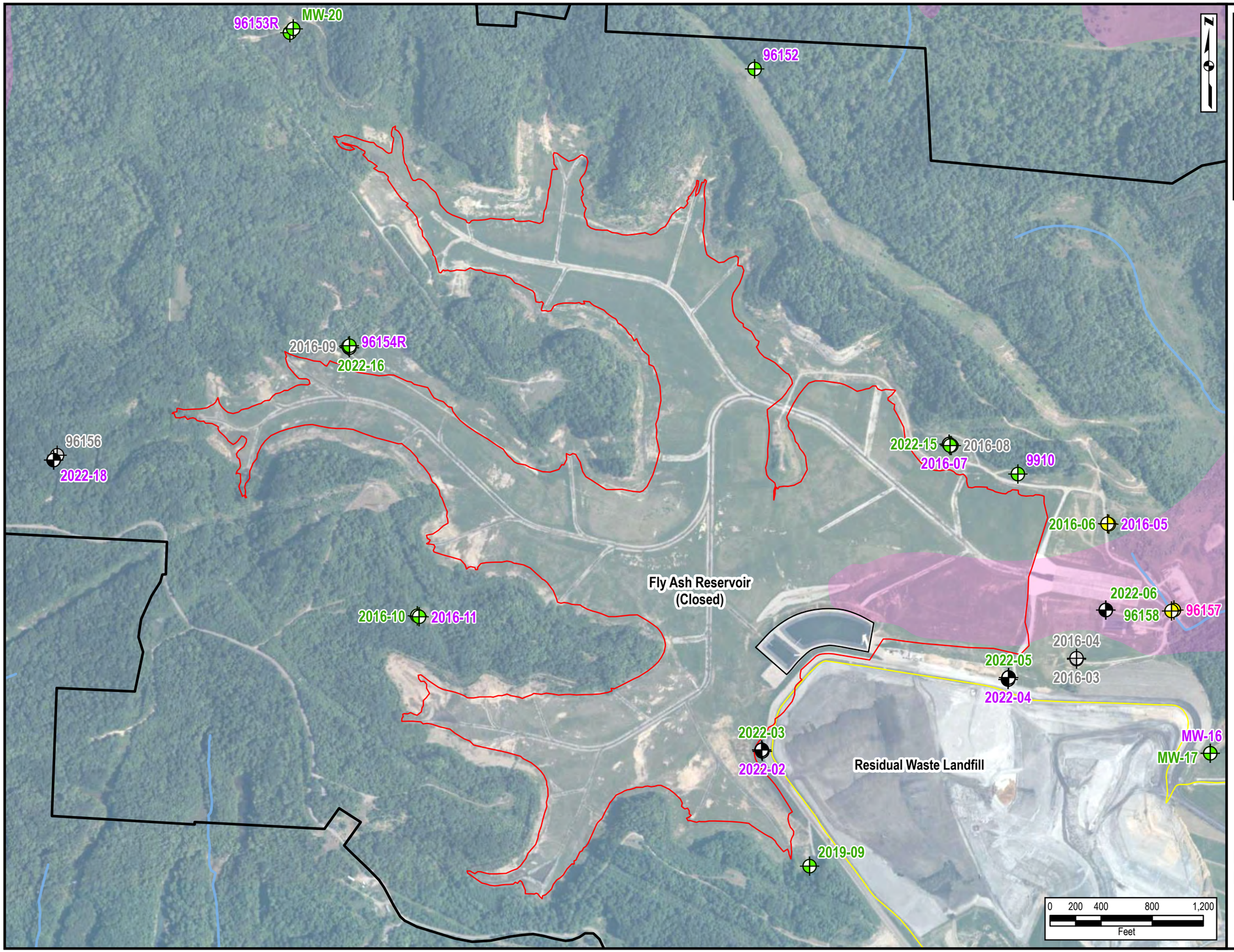
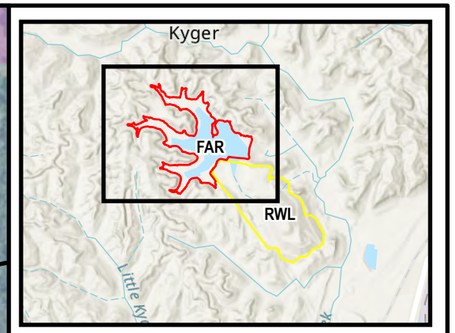


Figure 1-3: Federal Monitoring Well Locations
Residual Waste Landfill Area
Gavin Power, LLC
Cheshire, Ohio

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Legend

- 2022 Well (Under Evaluation)
- Federal Upgradient Monitoring Well
- Federal Downgradient Monitoring Well
- Abandoned Well
- Stream/Creek
- Pond Area
- Fly Ash Reservoir
- Residual Waste Landfill
- Gavin Property Boundary
- Interpreted area where the Morgantown Sandstone has been eroded and is not present (based on borehole logs and topographic analysis)
- 94138 Alluvium Monitoring Well
- 93108 Morgantown Monitoring Well
- 93105 Cow Run Monitoring Well
- 96156 Abandoned Well

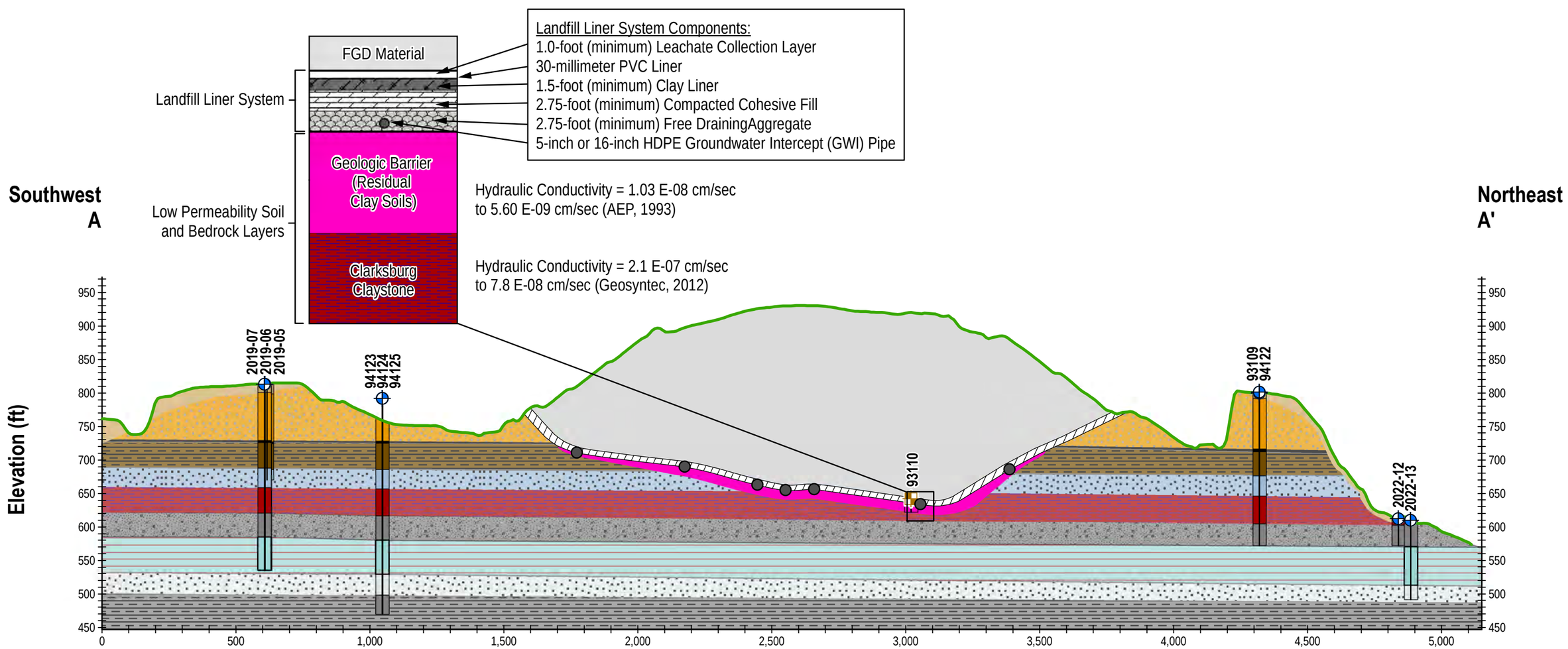
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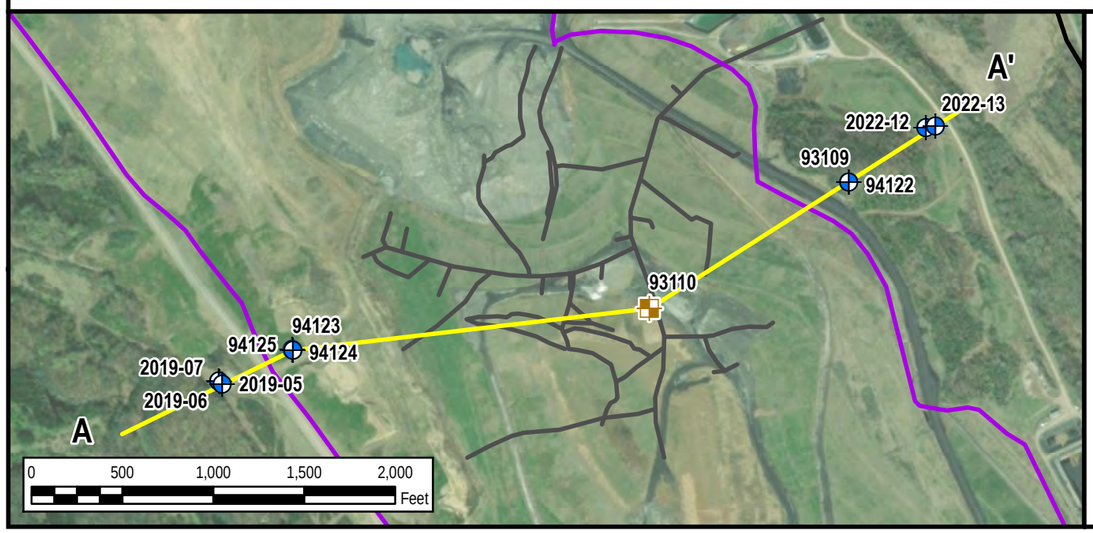
1. Aerial Imagery: USDA National Agriculture Imagery Program (NAIP), May 2023

Figure 1-4: Federal Monitoring Well Locations
Fly Ash Reservoir Area
Gavin Power, LLC
Cheshire, Ohio

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Legend

- Monitoring Well
- Soil Boring
- Groundwater Intercept (GWI) Infrastructure
- Surface Profile - 2022
- Boring Trace
- Cross-section Transect
- Approximate GWI Piping
- Proposed Limit of Waste
- Site Boundary
- Landfill Liner System

Generalized Lithology

- Overburden/Fill
- FGD Material
- Geologic Barrier (Residual Clay Soils)
- Pomeroy Sandstone
- Pomeroy Coal
- Undifferentiated Pittsburgh
- Connellsville Sandstone
- Clarksburg Claystone
- Morgantown Sandstone
- Round Knob Shale
- Cow Run Sandstone
- Anderson/Bloomfield/Buffalo Clayshale

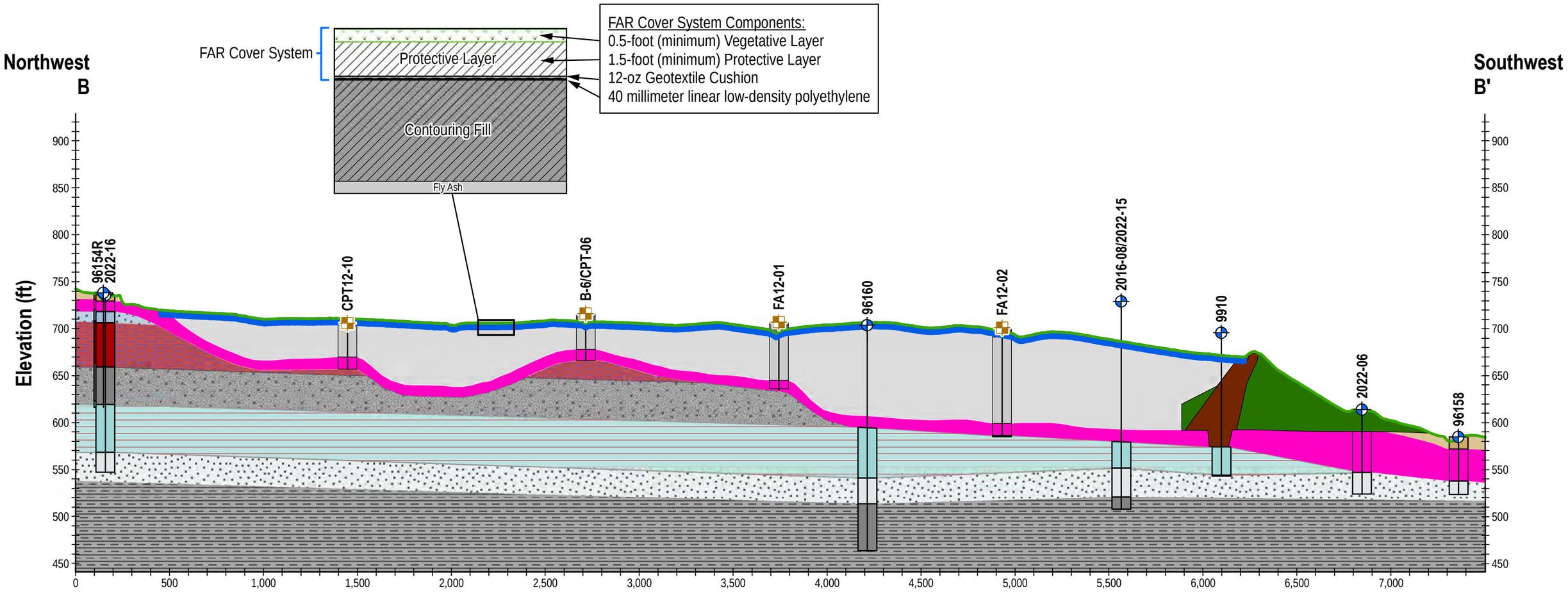
Figure 1-5: Geologic Cross Section A-A'
Gavin Power, LLC
Cheshire, Ohio

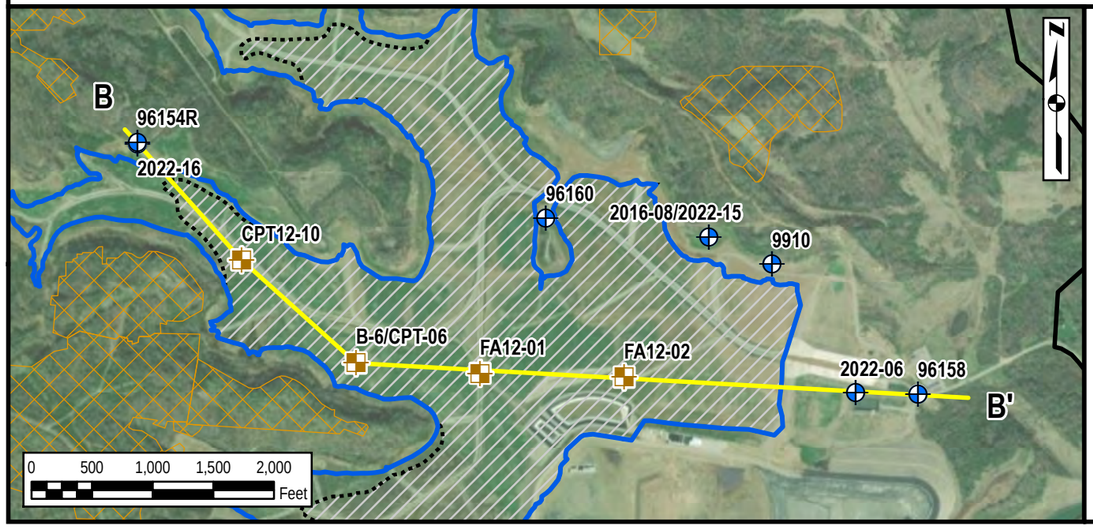
NOTE:

1. To more clearly illustrate geologic features, the Elevation (Y axis) scale is exaggerated 2.5x compared with the Distance Along Transect (X axis) scale, though both axes use feet as the unit of measurement.
2. Boring surface elevations, ground surface elevations and esitmated bedrock surface are projected along transect line.
3. The geology is generalized based on the lithology descriptions.
4. GWI piping shown to scale on inset figure depicting Landfill Liner System Components. GWI piping diameter exaggerated on Section to depict locations of piping infrastructure intersecting Section line.
5. Aerial Imagery from ESRI World Imagery Reproduced under license in ArcGIS 10.8.

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Legend

- Monitoring Well
- Soil Boring/CPT Location
- Surface Profile - 2022
- FAR Cover System
- Boring Trace
- Cross-section Transect
- Extent of Fly Ash
- Extent of FAR Cover System
- Historic Mining Area
- Site Boundary

Generalized Lithology

- Overburden
- Fly Ash
- Clay Core
- Fill
- Residual Clays
- Connellsville Sandstone
- Clarksburg Claystone
- Morgantown Sandstone
- Round Knob Shale
- Cow Run Sandstone
- Anderson/Bloomfield/Buffalo Clayshale

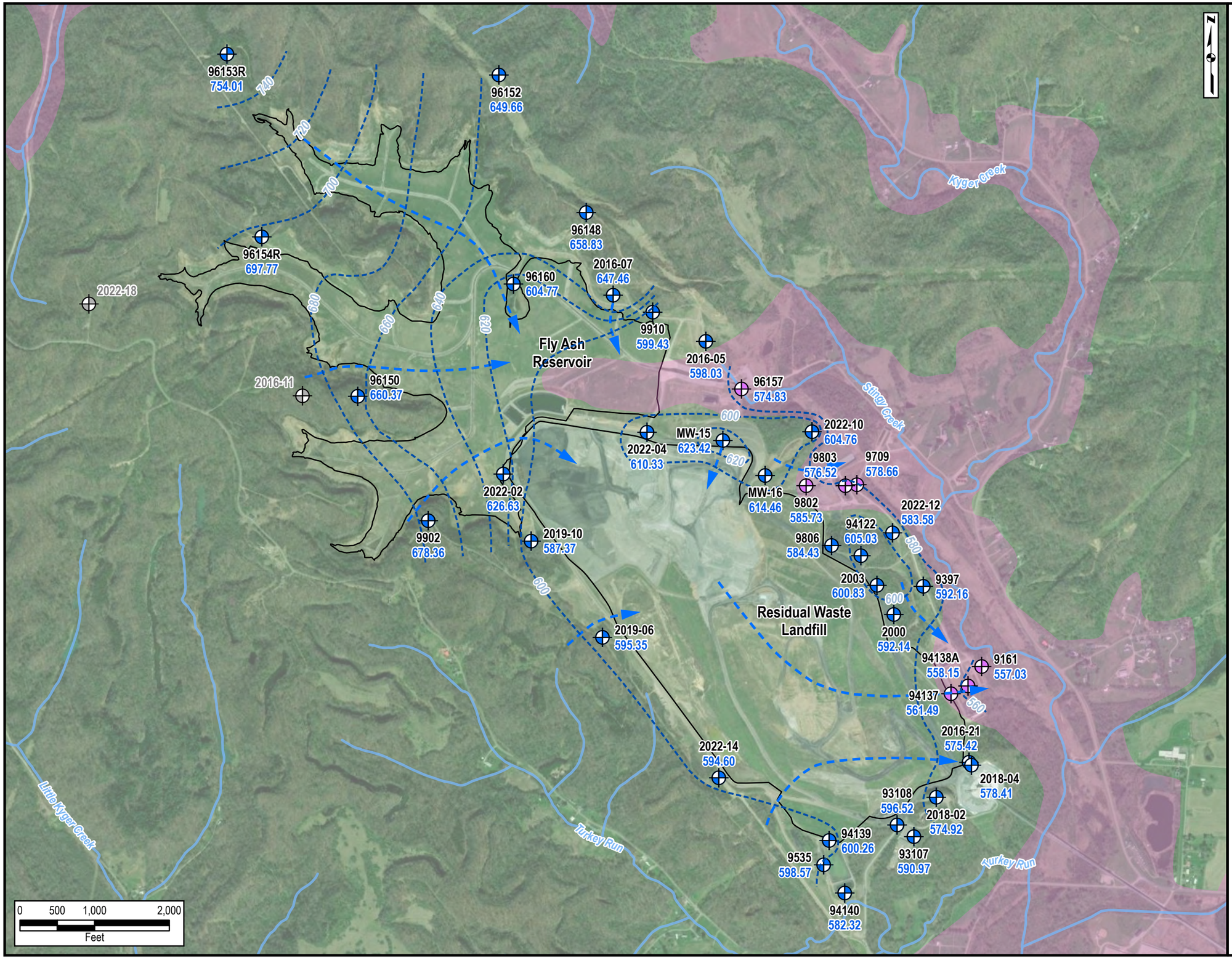
Figure 1-6: Geologic Cross Section B-B'
Gavin Power, LLC
Cheshire, Ohio

NOTE:

1. To more clearly illustrate geologic features, the Elevation (Y axis) scale is exaggerated 5x compared with the Distance Along Transect (X axis) scale, though both axes use feet as the unit of measurement.
2. Boring surface elevations, ground surface elevations and esitmated bedrock surface are projected along transect line.
3. The geology is generalized based on the lithology descriptions.
4. Aerial Imagery from ESRI World Imagery Reproduced under license in ArcGIS 10.8.

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M:\US\Projects\A-C\Blackstone_Cpr\Gavin\PowerPoint\MXD\FAR_CrossSections_2023\Figure_CrossSections_20231219.mxd - Kelly.Mozko - 1/8/2024

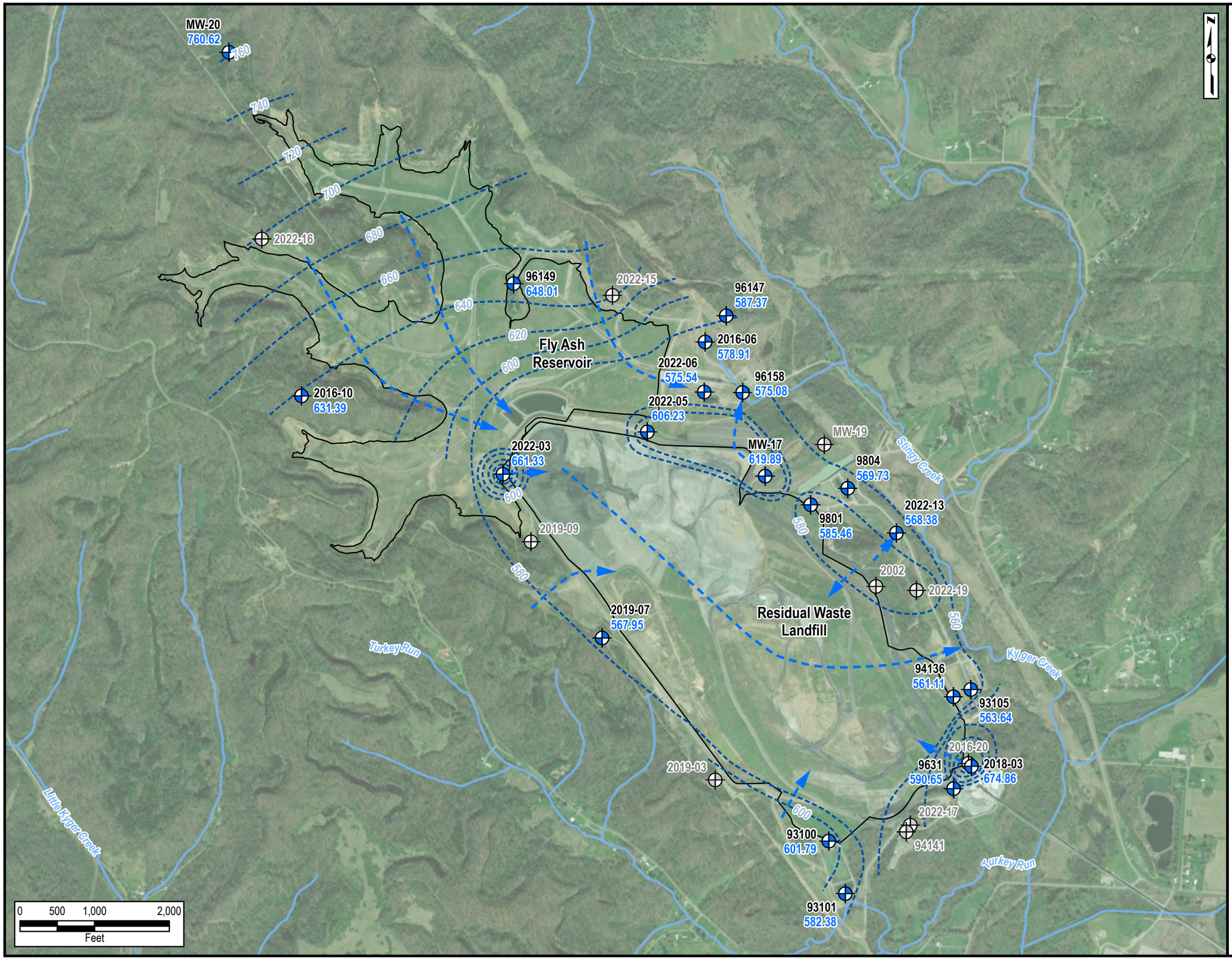


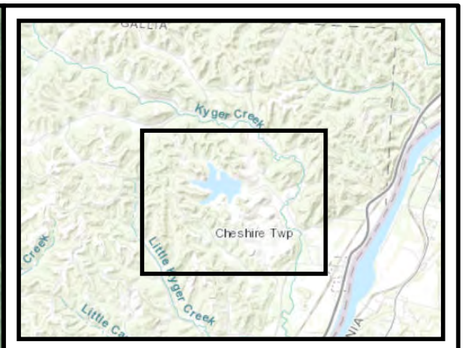
NOTES:

- Interpreted contours based on groundwater gauging conducted on 8/26/2024 - 8/27/2024.
- Some groundwater elevation contours were interpreted using historical groundwater trends in monitoring wells that were not gauged in August 2024.
- Where the Morgantown SS is absent, the contours represent the potentiometric surface in the alluvial aquifer because these aquifers are hydraulically connected.
- H2 refers to the second half of 2024

Figure 1-7: Morgantown Sandstone Groundwater Flow Directions
H2 2024
Gavin Power, LLC
Cheshire, Ohio

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Legend

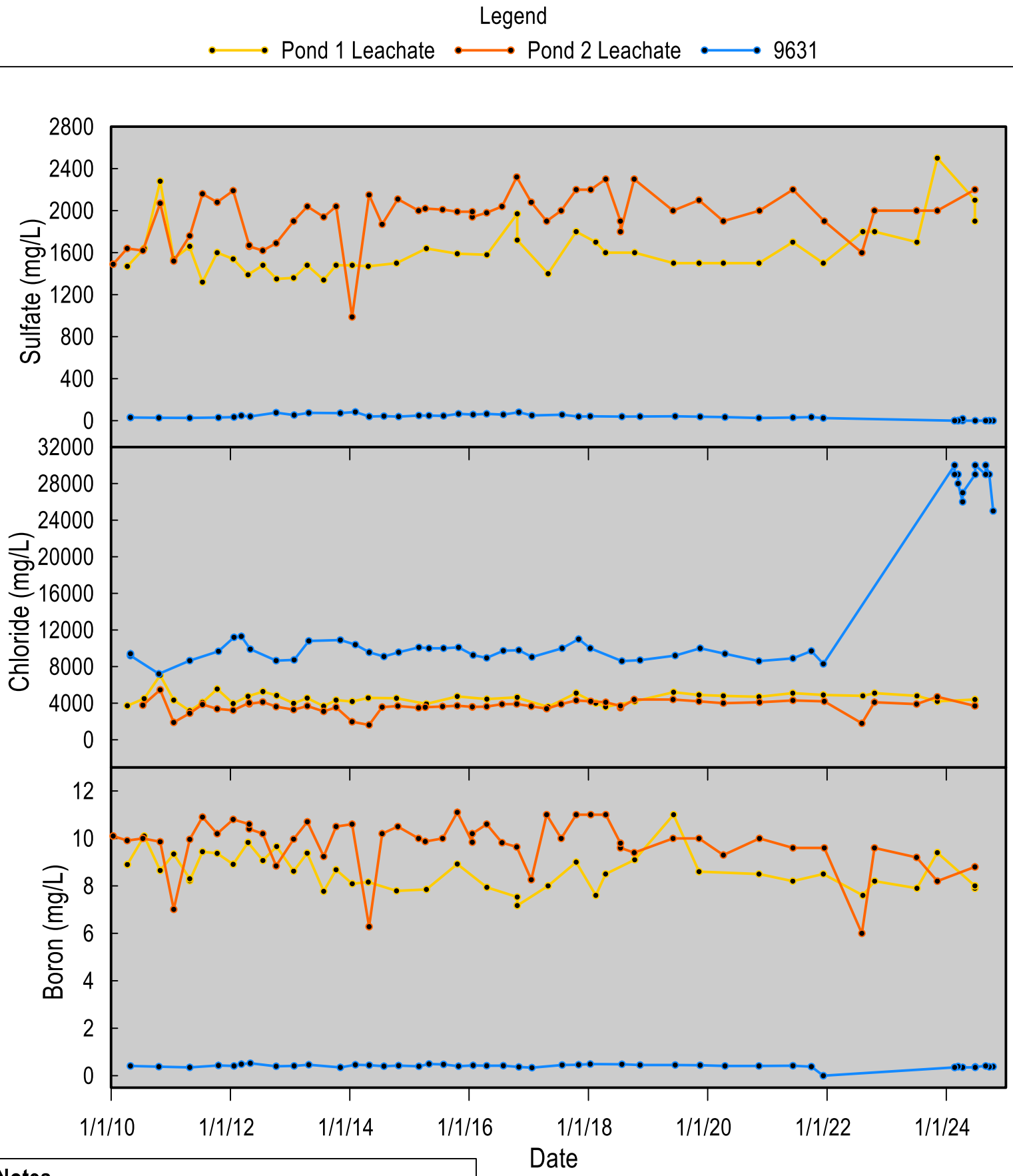
- Cow Run Sandstone Monitoring Well
- Cow Run Sandstone Well - Low Recharge, Dry, or Data Anomaly
- 605.82 Groundwater Elevation (ft)
- H2 2024 Interpreted Groundwater Potentiometric Contour
- H2 2024 Interpreted Generalized Groundwater Flow Direction
- Stream/Creek
- Coal Combustion Residual Unit

NOTES:

- Cow Run Sandstone is present through entire site.
- Interpreted contours based on groundwater gauging conducted on 8/26/2024 - 8/27/2024.
- Some groundwater elevation contours were interpreted using historical groundwater elevation trends in monitoring wells that were not gauged in August 2024.
- H2 refers to the second half of 2024

Figure 1-8: Cow Run Sandstone Groundwater Flow Directions H2 2024
Gavin Power, LLC
Cheshire, Ohio

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Notes

1. Date range January 2010 to October 2024.
2. Figure includes data collected under both Federal CCR Program and Ohio State Sampling Program.
3. Non-detects are plotted as zero.
4. Anomalous boron data for Pond 1 Leachate on 4/16/2020 omitted.

Figure 6-1. Boron, Chloride, and Sulfate in Brine Impacted Wells and Landfill Leachate
Gavin Generating Station
Cheshire, Ohio

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APPENDIX E ANALYTICAL DATA SUMMARY

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
	Date	2016-08-24	2016-10-06	2016-12-01	2017-02-02	2017-03-23	2017-05-01	2017-06-12	2017-07-17	2018-03-15	2018-09-13	2019-03-12	2019-09-24	2020-03-24	2020-09-22	2021-03-22	2021-03-22
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L			417	424					380	370	380	380	390	380	390	390
Aluminum	mg/L					7.8 J	0.18	1.4 B	0.32								
Antimony	mg/L	2E-05 J	1E-05 J	3E-05	0.0001	0.002 U	0.002 U	0.002 U	0.002 U								
Arsenic	mg/L	0.0018	0.00177	0.00153	0.00192	0.0042 J	0.0017 J	0.0024 J	0.0017 J								
Barium	mg/L	0.0244	0.0233	0.019	0.0245	0.078 B	0.022	0.036	0.024								
Beryllium	mg/L	2E-05 U	5E-06 J	5E-06	2E-05 U	0.00042 J	0.001 U	0.001 U	0.001 U								
Bicarbonate Alkalinity as CaCO3	mg/L									350	330		340	350	350	350	350
Bicarbonate Alkalinity as HCO3	mg/L											350					
Boron	mg/L	0.289	0.278	0.296	0.283	0.33	0.33	0.34	0.35 JB	0.32		0.34	0.31	0.29	0.32	0.37	0.37
Bromide	mg/L			0.412	0.334	0.41 J	5 U	2.5 U	2.5 U								
Cadmium	mg/L	2E-05 U	5E-06 J	1E-05	5E-05	0.001 U	0.001 U	0.001 U	0.001 U								
Calcium	mg/L	2.7	2.78	2.64	2.57	3.9 B	2.5	3.2	2.6	2.6	2.8	2.6	2.6	2.5	2.7	3.1	3
Carbonate Alkalinity as CaCO3	mg/L									34	34	34	38	41	29	39	41
Chloride	mg/L	83.9	92	96.9	96.3	96	60	79	62	86	96	93	100	110	87	90	87
Chromium	mg/L	0.0018	0.0033	0.0007	0.00263	0.06	0.0019 J	0.0081	0.0019 J								
Cobalt	mg/L	0.00011	0.000202	4.6E-05	0.000151	0.0052	0.00026 J	0.0011	0.00042 J								
Conductivity, Field	uS/cm	2068	2149	2094	2158					2079				2014	1990	2005	2005
Copper	mg/L					0.01 B	0.002 U	0.0048 B	0.002 U								
Dissolved Oxygen, Field	mg/L	0.88	3.16	1.59	1.86					0.2							
Dissolved Solids, Total	mg/L	1220	1300	1290	1290	1300 J	1200 J	1300	1300 J	1300		1300	1300	1300	1200	1300	1300
Fluoride	mg/L	1.86	2	2.26	2.13	2.6	2.2	2.4	2.2	2.2	2.3	2.2	2.5	2.4	2.1	2.2	2.1
Iron	mg/L					8.3 JB	0.19	1.5	0.39								
Lead	mg/L	3.9E-05	9.6E-05	4.9E-05	0.000237	0.0052 J	0.00056 J	0.0011	0.00058 J								
Lithium	mg/L	0.02	0.023	0.017	0.014	0.021	0.016	0.018	0.016								
Magnesium	mg/L			0.724	0.723	2.4 B	0.75 J	1.1	0.8 J	0.66 J	0.69 J	0.76 J	0.74 J	0.73 J	0.64 J	0.82 J	0.76 J
Manganese	mg/L					0.084	0.01	0.026	0.014								
Mercury	mg/L	5E-06 U	5E-06 U	2E-06	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U								
Molybdenum	mg/L	0.0389	0.0349	0.0331	0.0345	0.037	0.033	0.033	0.032								
Nickel	mg/L					0.039	0.002 U	0.0056	0.0018 J								
Oxidation-Reduction Potential, Field	mV																
pH, Field	pH units	7.28	8.89	8.6	8.59	8.69	8.58	8.55	8.61	8.71	8.6	8.85	8.83	8.85	8.79	8.68	8.68
Potassium	mg/L			1.05	1.49	2.6 B	0.92 J	1.2	0.91 J	0.84 J	1	0.93 J	0.9 J	0.98 J	0.87 J	1.1	0.98 J
Radium-226	pCi/L	0.356	0.547	0.32	0.257	0.303	0.116	0.147	0.171								
Radium-226/228	pCi/L	1.348	1.827	0.595	0.701	0.497	0.339	0.539	0.53								
Radium-228	pCi/L	0.992	1.28	0.275	0.444	0.194 U	0.224 U	0.393	0.359								
Redox Potential, Field	mV	167.6	70.5	-68	88.2												
Selenium	mg/L	7E-05 J	4E-05 J	5E-05	0.0001 U	0.00073 J	0.005 U	0.005 U	0.005 U								
Silver	mg/L					0.0005 J	0.001 U	0.001 U	0.001 U								
Sodium	mg/L			414	405	440 JB	480 B	460 B	440 JB	440	460	470	490	430	450	470	470
Strontium	mg/L			0.199	0.19	0.22 B	0.19 B	0.2 B	0.19								
Sulfate	mg/L	493	516	567	521	560 J	570	560	560	560	570	570	540	540	530	430	490
Temperature, Field	deg C	15.16	18.6	15.2	12.4					13.1				13	16	14	14
Thallium	mg/L	2E-05 J	4E-05 J	1E-05	5.2E-05	0.001 U	0.001 U	0.001 U	0.001 U								
Turbidity, Field	NTU	3.3	5.1	6.7	1.9	61.2	28.9	31.1	5.7	1.2	1.96		3	16.5	0.3	4.3	4.3
Vanadium	mg/L					0.013			0.005 U								
Zinc	mg/L					0.026	0.02 U	0.02 U	0.02 U								

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

		Location	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2003	2003	2003	2003	2003	2003
		Date	2021-09-19	2022-03-23	2022-09-20	2023-04-05	2023-09-25	2023-09-25	2024-03-14	2024-03-14	2024-09-25	2024-09-25	2016-12-01	2017-02-08	2017-03-27	2017-05-01	2017-06-12	2018-10-29
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		360	210 J	380	410		400		400		410	709	680				730
Aluminum	mg/L			0.064											61 J	34	27	28
Antimony	mg/L			0.002 U		0.002 U		0.002 U		0.002 U		0.002	0.00029	0.0002	0.0014 JB	0.00087 J	0.00074 J	0.00058 J
Arsenic	mg/L			0.0024		0.0019 J		0.0013 J		0.0019 J		0.0042	0.00826	0.0074	0.03	0.019	0.02	0.021
Barium	mg/L			0.028		0.027		0.024		0.022		0.042	0.175	0.145	0.41 B	0.39	0.29	0.2
Beryllium	mg/L			0.001 U		0.001 U		0.001 U		0.001 U		0.001	0.000166	0.000162	0.0031	0.0022	0.0016	0.0011
Bicarbonate Alkalinity as CaCO3	mg/L		320	170 J	320	350		360		350		370						710
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L		0.32	0.37 J	0.35	0.32		0.3		0.34		0.38	0.461	0.462	0.46	0.48	0.51	0.48
Bromide	mg/L												2.7	2.25	2.6 J	2.4 J	2 J	
Cadmium	mg/L			0.00019		0.001 U		0.001 U		0.001 U		0.0001	8E-05	6E-05	0.001 U	0.001 U	0.001 U	0.001 U
Calcium	mg/L		2.7	2.9	2.4	2.4		2.6		2.6		3	8.98	8.37	12 B	15	12	7.5
Carbonate Alkalinity as CaCO3	mg/L		38	42	54	64		40		46		48						27
Chloride	mg/L		110	120	110	130		89		73		210	643	700	650	690	560	430
Chromium	mg/L			0.012 J		0.0046 J		0.0019 J		0.005 U		0.014	0.0011	0.0839	0.11 B	0.058	0.055	0.037
Cobalt	mg/L			0.00027 J		0.00034 J		0.001 U		0.001 U		0.00056	0.00251	0.00382	0.023	0.014	0.013	0.0075
Conductivity, Field	uS/cm		2047	2124	2145	2229	2053		2084		2385		3638	3676				
Copper	mg/L			0.005 U											0.023 B	0.018 B	0.019 B	0.0076
Dissolved Oxygen, Field	mg/L			1.62	1.01	0.76	0.76		1.38		1.54		1.03	1.28				
Dissolved Solids, Total	mg/L		1400	1200	1200	1300		1200		1100		1300	1950	1960	2100 J	2400 J	2100	1800
Fluoride	mg/L		2.5	2.5	2.4 U	2.4		2.4		2.2		2.9	2.7	2.36	2.9	2.8	2.7	3.2
Iron	mg/L			0.18 J											67 JB	38	36	19
Lead	mg/L			0.0005 U		0.001 U		0.001 U		0.001 U		0.00051	0.00144	0.00165	0.031 J	0.019	0.018	0.0097
Lithium	mg/L			0.016		0.015		0.017		0.019 J		0.016	0.024	0.019	0.084	0.05	0.051	0.051
Magnesium	mg/L		0.7 J	0.77	0.71 J	0.73 J		0.72 J		0.66 J		0.91	2.26	2.65	9.6 B	7.3	5.9	4
Manganese	mg/L			0.027 J											0.21 B	0.17	0.13	0.062
Mercury	mg/L			0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002	1.7E-05	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L			0.034		0.03		0.032		0.035		0.037	0.105	0.125	0.12	0.1	0.12 J	0.16
Nickel	mg/L			0.0019 J											0.074 B	0.039	0.04	0.025
Oxidation-Reduction Potential, Field	mV			-57.5	-35.5	-45.2	-110.8		30.6		-19.7							
pH, Field	pH units		8.68	8.75	8.7	8.66	8.72		8.6		8.67		8.02	7.84	7.94	7.87	7.83	8.06
Potassium	mg/L		0.78 J	1	0.83 J	0.9 J		0.88 J		0.83 J		1.1	2.61	3.22	11 B	7.2	6	5.9
Radium-226	pCi/L			0.674	0.156	0.113 U		0.144 U		0.225		0.239	0.555	0.193	0.937	0.45	1.48	0.909
Radium-226/228	pCi/L			1.1	0.857 J	0.449 U		1.45 J		0.834 J		0.102 U	0.975	1.483	2.93	0.95	2.05	1.71
Radium-228	pCi/L			0.421 U	0.701 J	0.337 U		1.31 J		0.608 J		-0.137 U	0.42	1.29	2 G	0.5 U	0.57 U	0.797
Redox Potential, Field	mV												4	-122.2				
Selenium	mg/L			0.0012 J		0.005 U		0.005 U		0.005 U		0.0018	0.0013	0.0011	0.0068	0.0034 J	0.0046 J	0.0017 J
Silver	mg/L			0.001 U											0.00074 J	0.00023 J	0.00061 J	0.0005 J
Sodium	mg/L		460	460	460	430		470		450		510	605	628	730 JB	740 B	730	630
Strontium	mg/L			0.21									0.593	0.567	0.84 B	0.94 B	0.69 B	0.52
Sulfate	mg/L		530	500	530	550		550		520		490	77.8	65.3	84 J	84	86	73
Temperature, Field	deg C		15	16	17.7	16.7	17.7		18.7		17.8		12.5	13.1				
Thallium	mg/L			0.001 U		0.001 U		0.001 U		0.00037 J		0.001	4E-05	3E-05 J	0.00031 J	0.001 U	0.001 U	0.0002 J
Turbidity, Field	NTU		0.4	0.1	8.86	11.8	6.76		3.44		25.07		123.9	265.2	530.1	336.7	236.9	1000
Vanadium	mg/L																	
Zinc	mg/L			0.28 J											0.11	0.07	0.059	0.041

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2003	2016-03
	Date	2019-09-21	2020-03-24	2020-09-21	2021-04-15	2021-09-29	2022-03-23	2022-05-10	2022-09-20	2023-04-05	2023-09-22	2023-09-22	2024-03-13	2024-03-13	2024-09-19	2024-09-19	2016-08-24
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	740	750	760	780	770	330	750	780	870		830		840		800	
Aluminum	mg/L						2.6										
Antimony	mg/L						0.002 U	0.002 U		0.00065 J		0.002 U		0.0006 J		0.00067	0.00096
Arsenic	mg/L						0.018	0.019		0.031		0.028		0.032		0.028	0.00059
Barium	mg/L						0.13	0.13		0.18		0.15		0.15		0.13	0.0321
Beryllium	mg/L						0.001 U	0.001 U		0.00072 J		0.001 U		0.001 U		0.00036	1E-05 J
Bicarbonate Alkalinity as CaCO3	mg/L	710	710	730	740	750	330	740	770	850		820		810		800	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.44	0.41	0.45	0.45	0.44	0.59 J		0.45	0.5		0.46		0.47		0.46	0.43
Bromide	mg/L																
Cadmium	mg/L						0.0001 U	0.001 U		0.001 U		0.001 U		0.001 U		0.00017	0.00012
Calcium	mg/L	5.8	5	5.7	9	5.8	7.7		23	7.1		7.1		7.2		7.7	149
Carbonate Alkalinity as CaCO3	mg/L	21	34	28	34	23	5 U	9.5	8.8	14		17		25		5	
Chloride	mg/L	390	500	440	440	480	390		430	390		440		430		350	21.7
Chromium	mg/L						0.014 J	0.011		0.026		0.014		0.017		0.0088	0.0002
Cobalt	mg/L						0.00094	0.0028		0.0072		0.0038		0.0046		0.0027	0.000403
Conductivity, Field	uS/cm		2692	2760	2783	2824	2641	2619	3094	2975	2941		2964		2371		1564
Copper	mg/L						0.005 U										
Dissolved Oxygen, Field	mg/L						1.4	0.96	1.95	0.84	1.18		1.92		1.09		4.38
Dissolved Solids, Total	mg/L	1600	1400	1600	1800	1700	1600		2700	1800		1700		1700		1500	1090
Fluoride	mg/L	3.6	3.4	3.2	3.3	3.5	3.8	3.6	3 U	3.4		3.5		3.4		3.8	0.2
Iron	mg/L						1.9										
Lead	mg/L						0.0011 J	0.0027		0.0079		0.0038		0.0044		0.0018	0.000324
Lithium	mg/L						0.024	0.026		0.038		0.03		0.033		0.023	0.03
Magnesium	mg/L	1.5	1.3	1.6	4.2	1.6	1.9	2.2	18	3.4		2.7		2.6		2.1	
Manganese	mg/L						0.02 J										
Mercury	mg/L						0.0002 U	0.00013 J	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002	1.1E-05
Molybdenum	mg/L						0.14	0.13		0.14		0.13		0.13		0.13	0.0154
Nickel	mg/L						0.0035 J										
Oxidation-Reduction Potential, Field	mV						12.2	42.5	138.4	132.1	90.4		56.6		-15.6		
pH, Field	pH units	8.19	8.26	8.21	8.08	8.08	7.91	8	7.92	7.94	8.06		7.83		7.91		7.07
Potassium	mg/L	1.8	1.5	2	5.1	1.8	2.3	2.7	18	4.2		3.2		3.5		2.5	
Radium-226	pCi/L						1.19	0.169 U	2.62	-0.309 U		0.274 U		0.521 U		0.586	0.306
Radium-226/228	pCi/L						1.7 U	0.68 U	5.52 J	3.11 U		1.69		2.23 J		1.83	0.409
Radium-228	pCi/L						0.506 U	0.511 U	2.9 J	3.42 U		1.41		1.71 J		1.25 G	0.103
Redox Potential, Field	mV																20.9
Selenium	mg/L						0.0025 J	0.0026 J		0.0091		0.008		0.0088		0.0071	0.0002
Silver	mg/L						0.001 U										
Sodium	mg/L	620	590	610	630	640	600	610	660	640		700		650		620	
Strontium	mg/L						0.47										
Sulfate	mg/L	74	72	84	76	70	61		66	72		72		64		61	446
Temperature, Field	deg C		14	16	13	14	15	14.8	18	14.9	16.8		14.9		17.2		15.8
Thallium	mg/L						0.001 U	0.001 U		0.001 U		0.001 U		0.001 U		0.001	2E-05 J
Turbidity, Field	NTU	60	24.3	43.1	683	19.7	70.7	122	1077.17	160.41	127.73		152.45		157.6		6.4
Vanadium	mg/L																
Zinc	mg/L						0.3 J										

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03	2016-03
	Date	2016-10-03	2016-12-01	2017-01-31	2017-03-27	2017-04-27	2017-06-07	2017-07-14	2018-03-21	2018-09-25	2019-03-15	2019-09-24	2020-03-25	2020-09-21	2021-03-16	2021-09-24	2022-03-28
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L		482	443					430	430	440 B	450	500	340	340	320	250
Aluminum	mg/L				0.03 J	0.05 U	0.05 U	0.045 J									0.036 J
Antimony	mg/L	0.00041	0.0004	0.00026	0.002 U	0.002 U	0.002 U	0.002 U									0.002 U
Arsenic	mg/L	0.00092	0.0007	0.00063	0.00058 J	0.001 J	0.00082 J	0.00088 J									0.0021
Barium	mg/L	0.0383	0.0256	0.0241	0.026 JB	0.024	0.026	0.025									0.025
Beryllium	mg/L	7.2E-05	1E-05 J	6E-06 J	0.001 U	0.001 U	0.001 U	0.001 U									0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L								430	430	440 B	450	500	340	340	320	250
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.35	0.361	0.416	0.43	0.44 B	0.45	0.44	0.43	0.43	0.41	0.39	1.6	1.7	1.7	2.1	2.2 J
Bromide	mg/L		0.614	3.5	0.4 J	2.5 U	2.5 UJ	2.5 U									
Cadmium	mg/L	0.0001	0.00016	6E-05	0.001 U	0.001 U	0.001 U	0.001 U									0.0001 U
Calcium	mg/L	129	128	134	140 B	140	150	140	140	140	120	130	290	330	370	450	450
Carbonate Alkalinity as CaCO3	mg/L								5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	21.8	22.7	867	22	23	22 J	22	24	23	23	24	32	50	38	30	24
Chromium	mg/L	0.0002	0.000162	0.000852	0.00064 JB	0.002 U	0.002 U	0.002 U									0.005 U
Cobalt	mg/L	0.000563	0.0005	0.000246	0.00029 J	0.00055 J	0.00019 J	0.00034 J									0.0019
Conductivity, Field	uS/cm	1599	1595	1328					1511				2101	2232	2462	2700	2738
Copper	mg/L				0.0018 JB	0.002 U	0.002 U	0.002 U									0.005 U
Dissolved Oxygen, Field	mg/L	1.15	1.77	2.38					0.26								0.76
Dissolved Solids, Total	mg/L	1080	1020	1990	1100	1100 J	1000	1000 J	1100	1000	1000	1000	1300	1800	2100	2300	2300 J
Fluoride	mg/L	0.18	0.16	2.33	0.21 J	0.19 J	0.21 J	0.19 J	0.24	0.22	0.19	0.23	0.19	0.13	0.18	0.19	0.15
Iron	mg/L				0.087 JB	0.068 J	0.064 J	0.087 J									1.8
Lead	mg/L	0.000456	0.000213	0.000105	0.00026 J	0.001 U	0.001 U	0.001 U									0.0005 U
Lithium	mg/L	0.03	0.034	0.031	0.029	0.034	0.029	0.034									0.036
Magnesium	mg/L		38.6	40.5	40 B	40	46	40	40	41	40	42	81	81	94	110	97
Manganese	mg/L				0.051 B	0.1	0.11	0.061									3
Mercury	mg/L	4E-05	3.9E-05	1.8E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U									0.0002 U
Molybdenum	mg/L	0.00646	0.00649	0.00523	0.0049 J	0.0043 J	0.004 J	0.0038 J									0.0022 J
Nickel	mg/L				0.0015 JB	0.002 U	0.002 U	0.002 U									0.003 J
Oxidation-Reduction Potential, Field	mV																-52.7
pH, Field	pH units	6.91	6.99	6.93	6.93	6.9	6.88	6.93	7.03	7	7.13	7.27	6.93	6.82	6.79	6.65	6.73
Potassium	mg/L		4.63	5.03	4.3 JB	4.4	4.8	4.6	4.6	4.6	8.4	5.3	6.2	6.3	7.2	6.9	6.9
Radium-226	pCi/L	0.225	0.266	0.854	0.194	0.195	0.201	0.207									0.689
Radium-226/228	pCi/L	1.295	0.44	1.121	0.456	0.541	0.59	1.02									2.16
Radium-228	pCi/L	1.07	0.174	0.267	0.262 U	0.347	0.389	0.816									1.47
Redox Potential, Field	mV	48.2	50.5	73.5													
Selenium	mg/L	0.0003	0.0001	0.0001	0.005 U	0.005 U	0.005 U	0.005 U									0.00099 J
Silver	mg/L				3E-05 J	0.001 U	0.00041 J	0.00044 J									0.001 U
Sodium	mg/L		171	156	150 JB	160 B	150 B	150 B	160	150	190	190	150	110	130	130	93
Strontium	mg/L		2.95	3.25	3.6 JB	3.7	4.4 B	3.4 J									8.3
Sulfate	mg/L	445	362	132	390	420	440 J	400	400	410	400	360	980	1200	1300	1500	1500
Temperature, Field	deg C	15.6	12.8	13					12.6				14	14	14	14	12
Thallium	mg/L	3E-05 J	2E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U									0.001 U
Turbidity, Field	NTU	9	8.1	4.9	2.1	1.3	1.4	6.4	1	1.68		4	1	4	6.5	5.1	2.7
Vanadium	mg/L																
Zinc	mg/L				0.02 U	0.02 U	0.02 U	0.02 U									0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-03	2016-03	2016-03	2016-03	2016-03	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04
	Date	2022-09-12	2022-12-02	2023-03-29	2023-09-18	2023-09-18	2016-08-24	2017-01-31	2017-03-27	2017-04-27	2017-06-07	2017-07-14	2018-03-22	2018-09-11	2019-03-15	2019-09-24	2020-03-25
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	290		250		270		50.7						250	290 B	300	340
Aluminum	mg/L								0.39 J	0.05 U	0.058	0.05 U					
Antimony	mg/L			0.002 U		0.002 U	0.00116	0.00033	0.00067 JB	0.00087 J	0.002 U	0.00097 J		0.002 U	0.002 U		
Arsenic	mg/L			0.0014 J		0.0022 J	0.00421	0.00259	0.0054	0.0044 J	0.0019 J	0.0039 J		0.0016 J	0.0015 J		
Barium	mg/L			0.028		0.023	0.117	0.065	0.14 JB	0.16	0.41	0.24		0.091	0.077		
Beryllium	mg/L			0.001 U		0.001 U	4E-05 U	2.2E-05	0.001 U	0.001 U	0.001 U	0.00038 J		0.00058 J	0.00085 J		
Bicarbonate Alkalinity as CaCO3	mg/L	290		250		270								250	290 B	300	340
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	2.8		2.5		2.4	0.343	0.227	0.27	0.27 B	0.36	0.3		0.38	0.39	0.39	0.87
Bromide	mg/L							0.896	4 J	7.4 J	9.3 J	4.8 J			1		
Cadmium	mg/L			0.001 U		0.001 U	5E-05	7E-05	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.00021 J		
Calcium	mg/L	490		460		470	9.88	47.6	22 B	18	33	24		87	93	96	120
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U		5 U								5 U	5 U	5 U	5 U
Chloride	mg/L	26		22		18	1060	204	820	1700	2100 J	1100		240	180	200	380
Chromium	mg/L			0.005 U		0.005 U	0.0305	0.00651	0.0054 JB	0.0027	0.002 U	0.0016 J		0.002 U	0.002 U		
Cobalt	mg/L			0.0011		0.0012	0.000641	0.000173	0.00026 J	0.001 U	0.001 U	0.00027 J		0.001 U	0.00031 J		
Conductivity, Field	uS/cm	2781		2505	2148		6270	1328					2138				2822
Copper	mg/L								0.0024 B	0.002 U	0.002 U	0.002 U					
Dissolved Oxygen, Field	mg/L	0.4		0.93	1.84		1.04	2.38					3.92				
Dissolved Solids, Total	mg/L		2300	2500		2300	2630	952	1900	3300 J	3600	2400 J		1100	1200	920	1500
Fluoride	mg/L	0.13		0.11		0.094	1.28	0.5	1.4	1.2	1.2 J	1.1		0.36	0.29	0.32	0.45
Iron	mg/L								0.38 JB	0.1 U	0.1 U	0.1 U					
Lead	mg/L			0.001 U		0.001 U	0.000238	0.000454	0.00043 J	0.001 U	0.001 U	0.00055 J		0.001 U	0.001 U		
Lithium	mg/L			0.034		0.038	0.236	0.035	0.044	0.072	0.066	0.066		0.053	0.05		
Magnesium	mg/L	110		100		98		6.97	3.8 B	4.2	13	5.8				38	39
Manganese	mg/L								0.0083 B	0.005	0.022	0.01					
Mercury	mg/L	0.0002 U		0.0002 U		0.0002 U	1.3E-05	7E-06	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U		
Molybdenum	mg/L			0.0016 J		0.0016 J	0.0864	0.0728	0.12 J	0.11	0.051	0.093		0.015	0.01		
Nickel	mg/L								0.0034 B	0.002 U	0.002 U	0.0015 J					
Oxidation-Reduction Potential, Field	mV	-30.2		-8.7	61.8												
pH, Field	pH units	6.59		6.65	6.92		8.4	6.93	7.79	7.82	7.8	8.22	7.75	7.62	7.62	7.71	7.76
Potassium	mg/L	7.1		7.1		7.4		7.01	7.3 JB	13	7.2	9.3				8.6	7.4
Radium-226	pCi/L	0.107 U		0.303		0.35	0.656	0.617	0.823	0.651	0.481	0.552 J		0.247	0.307		
Radium-226/228	pCi/L	0.939		0.825		1.42	1.08	1.328	1.51	1.27	1.19	1.21		0.512	0.482		
Radium-228	pCi/L	0.832		0.522		1.07	0.424	0.711	0.689	0.614	0.71	0.663		0.265 U	0.175 U		
Redox Potential, Field	mV						-174.3	73.5									
Selenium	mg/L			0.005 U		0.005 U	0.0021	0.0007	0.0026 J	0.0022 J	0.005 U	0.0032 J		0.005 U	0.005 U		
Silver	mg/L								0.00016 J	0.001 U	0.00017 J	7E-05 J					
Sodium	mg/L	96		95		89		219	670 JB	710	1400 B	880 B				260	380
Strontium	mg/L							1.34	0.94 JB	1.3	1.5 B	1.5					
Sulfate	mg/L	1700		1600		1800	252	326	330	230	190 J	290		420	410	390	520
Temperature, Field	deg C	14.5		13.5	14.6		15.2	13					12.3				13
Thallium	mg/L			0.001 U		0.001 U	3E-05 J	1E-05 J	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U		
Turbidity, Field	NTU	11.34		5.01	5.48		9.1	4.9	6.4	2.8	2.8	6.4	3	1.28		4	60.9
Vanadium	mg/L																
Zinc	mg/L								0.02 U	0.02 U	0.02 U	0.02 U					

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-04	2016-05	2016-05	2016-05	2016-05	2016-05	2016-05	2016-05
	Date	2020-09-21	2021-04-15	2021-11-03	2022-03-28	2022-09-12	2022-12-02	2023-03-29	2023-09-18	2023-09-18	2016-06-08	2016-08-25	2016-10-05	2016-12-01	2017-02-01	2017-03-27	2017-04-27
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	280	300	280	260	290		250		270				229	211		
Aluminum	mg/L				0.23											0.3 J	0.05 U
Antimony	mg/L				0.002 U			0.002 U		0.002 U		0.00015	0.0001 J	8E-05	4E-05 J	0.002 U	0.00072 J
Arsenic	mg/L				0.00091 J			0.005 U		0.005 U		0.00078	0.00074	0.00051	0.00028	0.005 U	0.005 U
Barium	mg/L				0.053			0.048		0.042		0.052	0.0432	0.0382	0.0331	0.049 JB	0.043
Beryllium	mg/L				0.001 U			0.001 U		0.001 U		0.000107	6E-05 J	3.4E-05	8E-06 J	0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	280	300	280	260	290		250		270							
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.75	2.3	3.3	3 J	3		2.9		2.9		0.116	0.088	0.088	0.11	0.1	0.1 JB
Bromide	mg/L													0.552	0.155	0.17 J	0.15 J
Cadmium	mg/L				0.0001 U			0.001 U		0.001 U		3E-05	2E-05 J	1E-05 J	8E-06 J	0.001 U	0.001 U
Calcium	mg/L	120	520	540	560	460		550		550		40.2	35.8	45	39.7	66 B	53
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U		5 U		5 U							
Chloride	mg/L	1000	46	29	25	26		20		17		16.3	17.2	16.9	11.4	9.2	9.6
Chromium	mg/L				0.0046 J			0.0031 J		0.0028 J		0.0015	0.0012	0.000802	0.000582	0.0017 JB	0.002 U
Cobalt	mg/L				0.0014			0.00043 J		0.00035 J		0.00299	0.00267	0.00158	0.000274	0.00042 J	0.00028 J
Conductivity, Field	uS/cm	6404	2948	2831	3032	2858		2548	2168			717	670	694	708		
Copper	mg/L				0.0071 J											0.00073 JB	0.002 U
Dissolved Oxygen, Field	mg/L				1.74	0.52		0.69	1.32			7.62	8.64	7.9	9.83		
Dissolved Solids, Total	mg/L	2400	2600	2700	2400 J		2500	2600		2400		474	406	430	388	500	460 J
Fluoride	mg/L	0.73	0.15	0.15	0.15	0.13		0.1		0.096		0.19	0.19	0.19	0.18	0.2	0.21
Iron	mg/L				0.86											0.45 JB	0.1 U
Lead	mg/L				0.0005 U			0.001 U		0.001 U		0.00194	0.00137	0.000848	0.000206	0.00036 J	0.001 U
Lithium	mg/L				0.035			0.03		0.03		0.019	0.016	0.011	0.012	0.011	0.013
Magnesium	mg/L	36	110	100	110	90		94		89				18.1	19.6	22 B	20
Manganese	mg/L				1.7											0.0099 B	0.005 U
Mercury	mg/L				0.0002 U	0.0002 U		0.0002 U		0.0002 U		8E-06	1E-05	1.7E-05	5E-06 U	0.0002 U	0.0002 U
Molybdenum	mg/L				0.002 U			0.0016 J		0.0011 J		0.00109	0.00115	0.00231	0.00071	0.00064 J	0.01 U
Nickel	mg/L				0.0037 J											0.0013 JB	0.002 U
Oxidation-Reduction Potential, Field	mV				69.2	79.2		183.8	189.7								
pH, Field	pH units	8.56	6.73	6.61	6.68	6.56		6.56	6.95		7.88	7.89	7.93	7.79	7.8	7.48	7.82
Potassium	mg/L	16	9.3	8.2	8.3	7		8.6		8.4				2.72	2.35	2.4 JB	2.3
Radium-226	pCi/L				0.595	0.385 U		0.186 U		0.231		0.5	0.369	0.299	0.4	0.176	0.14
Radium-226/228	pCi/L				1.37	1.22 U		0.763		0.881		1.027	0.703	1.429	0.40713	0.365 U	0.0784 U
Radium-228	pCi/L				0.772	0.839 U		0.577		0.65		0.527	0.334	1.13	0.00713	0.189 U	-0.0618 U
Redox Potential, Field	mV											162.5	206.5	119.4	162.7		
Selenium	mg/L				0.005 U			0.005 U		0.005 U		0.0005	0.0005	0.0002	0.0001	0.005 U	0.005 U
Silver	mg/L				0.001 U											0.001 U	0.001 U
Sodium	mg/L	980	100	77	73	57		63		61				84.5	69.3	71 JB	74 B
Strontium	mg/L				7.6									0.879	0.89	1.1 JB	1.1
Sulfate	mg/L	750	1800	1800	1800	1700		1700		1500		138	120	116	132	150	160
Temperature, Field	deg C	14	12	14	11	15.5		12.8	14.4			18.2	16.8	13	11.8		
Thallium	mg/L				0.001 U			0.001 U		0.001 U		2E-05 J	0.0002 U	2E-05 J	3E-05 J	0.001 U	0.001 U
Turbidity, Field	NTU		253	143	71.7	18.98		7.41	5.59		8.5	280.1	160.9	56.6	9.6	5.4	13.6
Vanadium	mg/L																
Zinc	mg/L				0.02 U											0.02 U	0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
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Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-05	2016-05	2016-05	2016-05	2016-05	2016-05	2016-05	2016-05	2016-05	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06
	Date	2017-06-08	2017-07-14	2023-03-29	2023-09-19	2023-09-19	2024-03-08	2024-03-08	2024-09-16	2024-09-16	2016-08-25	2016-10-03	2016-12-01	2017-02-01	2017-03-27	2017-04-27	2017-06-08
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L			210		190		250		200			490	554				
Aluminum	mg/L	0.5	0.55												3.7 J	0.17	3.6	
Antimony	mg/L	0.00067 J	0.002 U	0.002 U		0.002 U		0.002 U		0.00064	0.00019	0.00025	0.00023	0.00026	0.00047 JB	0.00078 J	0.002 U	
Arsenic	mg/L	0.00088 J	0.00079 J	0.0055		0.0018 J		0.0028 J		0.0079 J	0.00225	0.0023	0.00195	0.00214	0.0034 J	0.0017 J	0.0026 J	
Barium	mg/L	0.044 B	0.038	0.056		0.035		0.049		0.046	0.0707	0.0649	0.0525	0.0515	0.068 JB	0.05	0.064 B	
Beryllium	mg/L	0.00067 J	0.001 U	0.001 U		0.001 U		0.001 U		0.001	0.000198	0.000143	3.4E-05	6.8E-05	0.001 U	0.001 U	0.00035 J	
Bicarbonate Alkalinity as CaCO3	mg/L			210		190		250		200								
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.11	0.1	0.08 J		0.088 J		0.088 J		0.087	0.501	0.424	0.418	0.463	0.5	0.52 B	0.52	
Bromide	mg/L	0.23 J	0.26 J										2.18	1.85	2.4 J	2.1 J	2.3 J	
Cadmium	mg/L	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U		0.001 U	1E-05 J	2E-05 J	3E-05	4E-05	0.00061 J	0.001 U	0.001 U	
Calcium	mg/L	40	31	59		39		68		42	5.87	5.51	4.6	4.45	5 B	3.5	4.1	
Carbonate Alkalinity as CaCO3	mg/L			5 U		5 U		5 U		5								
Chloride	mg/L	14	16	6.2		12		6		15	545	560	515	548	550	550	570	
Chromium	mg/L	0.0033	0.0025	0.0041 J		0.0024 J		0.004 J		0.003	0.0092	0.077	0.0205	0.0625	0.068 JB	0.022	0.058 J	
Cobalt	mg/L	0.0011	0.00088 J	0.0027		0.00067 J		0.00085 J		0.0026	0.00208	0.00283	0.00156	0.00106	0.0019	0.00068 J	0.0038	
Conductivity, Field	uS/cm				648		826		677		2898	2931	3126	2933				
Copper	mg/L	0.0039	0.0042 B												0.005 JB	0.002 U	0.0071	
Dissolved Oxygen, Field	mg/L				9.82		8.75		9.89		0.6	0.58	1.02	1.4				
Dissolved Solids, Total	mg/L	410	400 J	410		400		460		340	1560	1560	1570	1540	1600	1600 J	1700	
Fluoride	mg/L	0.22	0.22	0.13		0.14		0.16		0.22	5.28	5.09	4.89	5.2	6	5.9	6.3	
Iron	mg/L	0.93	0.78												3.4 JB	0.24	3.3	
Lead	mg/L	0.0012	0.00077 J	0.0036		0.00092 J		0.0013		0.0046	0.00371	0.00151	0.00039	0.000607	0.0016 J	0.001 U	0.0013	
Lithium	mg/L	0.012	0.014	0.01		0.011		0.013		0.013	0.029	0.024	0.027	0.034	0.034	0.032	0.031	
Magnesium	mg/L	19	16	24		19		24		18			1.28	1.4	1.7 B	1	1.8	
Manganese	mg/L	0.022	0.02												0.022 B	0.0068	0.019	
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002	5E-06 J	1.1E-05	1.6E-05	3E-06 J	0.0002 U	0.0002 U	0.0002 U	
Molybdenum	mg/L	0.0012 J	0.01 U	0.0014 J		0.005 U		0.0011 J		0.0024	0.0595	0.0952	0.0674	0.0804	0.091 J	0.076	0.074	
Nickel	mg/L	0.0026	0.0027												0.031 B	0.029	0.13	
Oxidation-Reduction Potential, Field	mV				185.7		135.4		92.5									
pH, Field	pH units		8.01		7.99		7.59		7.82		8.51	8.36	8.36	8.45	8.44	8.49	8.39	
Potassium	mg/L	2.5	2.3	2.5		2.2		2.4		2.6			3.45	10.5	7.2 JB	6	5.6	
Radium-226	pCi/L	0.0681 U	0.13	0.151 U		0.175 U		0.0164 U			0.325	0.818	0.392	0.252	0.163	0.163	0.195	
Radium-226/228	pCi/L	0.0846 U	0.575	0.33 U		J		0.0257 U			0.756	2.268	1.052	0.604	0.381	0.395	0.362 U	
Radium-228	pCi/L	0.0165 U	0.445	0.178 U		0.413 U		0.00936 U			0.431	1.45	0.66	0.352	0.217 U	0.232 U	0.167 U	
Redox Potential, Field	mV										72.2	60.6	79.4	107.6				
Selenium	mg/L	0.005 U	0.005 U	0.005 U		0.005 U		0.00091 J		0.005 U	0.0003	0.0002	0.0003	0.0003	0.005 U	0.005 U	0.005 U	
Silver	mg/L	0.001 U	0.0013												0.0012	0.001 U	9.1E-05 J	
Sodium	mg/L	82	74 B	58		74		62		74			637	499	610 JB	620	590	
Strontium	mg/L	0.87 B	0.81										0.274	0.269	0.3 JB	0.29	0.24 B	
Sulfate	mg/L	140	130	150		140		160		130	103	96.5	95.1	94.8	110	110	120	
Temperature, Field	deg C				18.1		14.7		17.4		19.1	16	12.9	12				
Thallium	mg/L	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U		0.00069 J	3E-05 J	2E-05 J	2E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	
Turbidity, Field	NTU		7.7		18.91		94.65		9.49		99.6	45.2	52.9	48.5	43.5	68.6	59.1	
Vanadium	mg/L																	
Zinc	mg/L	0.02 U	0.02 U												0.0097 J	0.02 U	0.02 U	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

		Location	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06	2016-06
		Date	2017-07-14	2018-03-22	2018-09-25	2018-09-25	2019-03-26	2019-09-22	2020-03-15	2020-03-15	2020-09-17	2021-03-17	2021-09-24	2022-03-28	2022-09-12	2022-12-02	2023-03-28	2023-09-15
		Sample Type	N	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L				490	490	510	500	510	510	480	490	510	480	530		510	
Aluminum	mg/L	1.7												0.1				
Antimony	mg/L	0.002 U												0.002 U			0.002 U	
Arsenic	mg/L	0.0024 J												0.0011 J			0.00093 J	
Barium	mg/L	0.059												0.058			0.063	
Beryllium	mg/L	0.001 U												0.001 U			0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L				460	470	460	470	470	470	460	470	470	460	490		480	
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.5			0.48	0.49	0.5	0.45	0.46	0.48	0.46	0.5	0.46	0.47 J	0.47		0.47	
Bromide	mg/L	2.1 J																
Cadmium	mg/L	0.001 U												0.0001 U			0.001 U	
Calcium	mg/L	4			4.4	4.8	4.9	4.4	4.1	4.2	5.1	5	4.8	4.5	4.8		4.4	
Carbonate Alkalinity as CaCO3	mg/L				26	23	41	35	36	36	24	26	47	21	43		30	
Chloride	mg/L	540			600	620	580	540	650	660	630	620	630	660	630		640	
Chromium	mg/L	0.062												0.0023 J			0.008	
Cobalt	mg/L	0.0018												0.00028 J			0.00025 J	
Conductivity, Field	uS/cm		2792						2888	2888	2979	2946	2972	3114	3040		3137	3103
Copper	mg/L	0.007 B												0.005 U				
Dissolved Oxygen, Field	mg/L		0.38											1.5	2.49		1.83	2.1
Dissolved Solids, Total	mg/L	1600 J			1400	1400	1600	1500	1600	1600	1400	1700	1400	1400 J		1500	1600	
Fluoride	mg/L	6.1			5.8	5.7	5.6	5.8	5.5	5.5	5.5	5.1	5.4	5.4	5.7		5.5	
Iron	mg/L	1.7												0.077 J				
Lead	mg/L	0.00083 J												0.0005 U			0.001 U	
Lithium	mg/L	0.032												0.02			0.021	
Magnesium	mg/L	1.3			1.4	1.4	1.6	1.4	1.3	1.4	1.5	1.4	1.3	1.3	1.5		1.2	
Manganese	mg/L	0.018												0.011				
Mercury	mg/L	0.0002 U										0.0002 U		0.0002 U	0.0002 U		0.0002 U	
Molybdenum	mg/L	0.073												0.056			0.062	
Nickel	mg/L	0.05												0.011				
Oxidation-Reduction Potential, Field	mV													52.6	10.4		142.1	4.7
pH, Field	pH units	8.28	8.43		8.24	8.52	8.59	8.47	8.47	8.52	8.3	8.28		8.57	8.32		8.31	8.36
Potassium	mg/L	4.8		3	3.4	4.8	3.8	2.7	2.9	2.9	2.1	3.7		3.1	4.8		3.3	
Radium-226	pCi/L	0.152												0.0869 U	0.278 U		0.148 U	
Radium-226/228	pCi/L	0.651												0.347 U	0.716		0.619	
Radium-228	pCi/L	0.498												0.26 U	0.437 U		0.471 U	
Redox Potential, Field	mV																	
Selenium	mg/L	0.001 J												0.005 U			0.005 U	
Silver	mg/L	0.00017 J												0.001 U				
Sodium	mg/L	600 B		600	610	600	590	600	610	610	620	630		670	700		630	
Strontium	mg/L	0.27												0.34				
Sulfate	mg/L	110		100	100	110	110	100	100	99	96	99		98	100		98	
Temperature, Field	deg C		13.3					13	13	14	14	14		13	16.6		13.9	16.1
Thallium	mg/L	0.001 U												0.001 U			0.001 U	
Turbidity, Field	NTU	30.7	49		43.9		71	37.6	37.6	24.1	26.1	15.2		5.8	12.11		12.16	127.3
Vanadium	mg/L																	
Zinc	mg/L	0.02 U												0.02 U				

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-06	2016-06	2016-06	2016-06	2016-06	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
	Date	2023-09-15	2024-03-08	2024-03-08	2024-09-20	2024-09-20	2016-08-24	2016-10-05	2016-11-30	2017-01-31	2017-03-22	2017-04-27	2017-08-10	2018-04-05	2018-10-23	2019-03-26	2019-09-22
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	530		520		490			514	483				360	300	430	320
Aluminum	mg/L										57 J	9.8	40				
Antimony	mg/L	0.002 U		0.002 U		0.002	0.00126	0.00091	0.00079	0.00045	0.0015 J	0.0024	0.0017 JB				
Arsenic	mg/L	0.004 J		0.0015 J		0.0023	0.00772	0.00705	0.00666	0.0042	0.016	0.0034 J	0.016				
Barium	mg/L	0.079		0.072		0.071	0.107	0.141	0.115	0.188	0.83 JB	0.7	1.3				
Beryllium	mg/L	0.001 U		0.001 U		0.001	0.000368	0.00027	0.000183	0.000428	0.0026	0.00091 J	0.0028				
Bicarbonate Alkalinity as CaCO3	mg/L	500		490		460								190	120	72	59
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.43		0.47		0.45	0.313	0.297	0.348	0.365	0.4	0.42 B	0.44	0.45	0.42	0.38	0.39
Bromide	mg/L								5.48	0.308	4.5 J	8 J	5.5				
Cadmium	mg/L	0.001 U		0.001 U		0.00013	7E-05	8E-05 J	0.0001	8E-05	0.001 U	0.001 U	0.00059 J				
Calcium	mg/L	5.2		5.4		5.6	13.3	11.5	8.2	9.9	15 B	25	41	12	12	6.3	7.8
Carbonate Alkalinity as CaCO3	mg/L	23		30		31								170	180	350	260
Chloride	mg/L	650		650		640	421	609	643	23.6	1000	1900	1200	1200	1100	810	1000
Chromium	mg/L	0.02		0.19		0.011	0.0015	0.0022	0.00163	0.00322	0.063 J	0.011	0.059				
Cobalt	mg/L	0.0025		0.0015		0.0011	0.00105	0.000905	0.000573	0.00167	0.016	0.0028	0.015				
Conductivity, Field	uS/cm		3108		3047		2883	3250	2246	3388				4913			
Copper	mg/L										0.044 JB	0.0079	0.04 B				
Dissolved Oxygen, Field	mg/L		3.02		0.9		3.47	3.81	3.75	1.94				2.48			
Dissolved Solids, Total	mg/L	1600		1600		2600	1740	1850	1900	1000	2300	3900 J	2500 J	2300	1800	2100	1900
Fluoride	mg/L	5.5		5.6		5.7	1.89	2.04	1.94	0.18	2.3	1.6	2.6	2.8	2.9	2.6	3.3
Iron	mg/L										49 JB	8.5	47				
Lead	mg/L	0.0026		0.0011		0.0014	0.00336	0.00292	0.00215	0.00336	0.031 J	0.0054	0.036 B				
Lithium	mg/L	0.027		0.025		0.022	0.235	0.193	0.202	0.163	0.16	0.062	0.19				
Magnesium	mg/L	1.9		1.6		1.8			1.36	2.83	11 B	8.3	12	3.9	3.4	2.6	2.3
Manganese	mg/L										0.24 B	0.075	0.31				
Mercury	mg/L	0.0002 U		0.0002 U		0.0002	1.2E-05	1.7E-05	8E-06	5E-05 J	0.0002 U	0.0002 U	0.0002 U				
Molybdenum	mg/L	0.058		0.07		0.057	0.0808	0.0841	0.0953	0.0689	0.092 J	0.056	0.11 B				
Nickel	mg/L										0.043	0.0086	0.051				
Oxidation-Reduction Potential, Field	mV		113.7		67												
pH, Field	pH units		8.22		8.31		10.86	10.56	10.61	10.01	9.94	9.44	9.1	9.49	9.75	10.41	10.4
Potassium	mg/L	3.7		3.6		2.7			33.9	24.1	23 JB	6.5	19	6.6	6.8	8.4	4.4
Radium-226	pCi/L	0.235 U		0.419 J		0.211 U	0.427	0.977	1.13	1.18	2.63	6.4	3.74 J				
Radium-226/228	pCi/L	1.48 J		0.816 J		1.54	0.427	3.077	2.17	2.84	4.35	12.7	8.09 J				
Radium-228	pCi/L	1.24 J		0.397 U		1.33 G		2.1	1.04	1.66	1.72 G	6.29 G	4.34 G				
Redox Potential, Field	mV						6.4	63	20.4	22							
Selenium	mg/L	0.005 U		0.005 U		0.005	0.0008	0.001	0.0007	0.0008	0.004 J	0.0015 J	0.0052				
Silver	mg/L										0.00078 J	0.00019 J	0.0037				
Sodium	mg/L	660		640		670			562	635	930 JB	1300	1000	920	850	840	760
Strontium	mg/L								0.624	0.815	1.3 JB	2.3	2.8 B				
Sulfate	mg/L	100		100		97	229	235	178	371	120	99	77	60	49	46	36
Temperature, Field	deg C		13.6		18.8		15.6	15.3	14.1	12.8				13.8			
Thallium	mg/L	0.001 U		0.001 U		0.001	8.4E-05	9E-05 J	4E-05 J	6.1E-05	0.00052 J	0.001 U	0.00066 J				
Turbidity, Field	NTU		56.04		83.2		213	98.2	88.1	455.1	850	13721	1037	174	81.4		32
Vanadium	mg/L										0.066						
Zinc	mg/L										0.12	0.02	0.12				

Notes:
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mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07	2016-07
	Date	2020-03-15	2020-03-24	2020-09-17	2021-03-23	2021-09-24	2022-03-29	2022-05-09	2022-09-13	2022-10-20	2023-03-28	2023-09-14	2023-09-14	2024-03-07	2024-03-07	2024-09-25	2024-09-25
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	360	320	350	350	310	310	320	310	290	290		320		300		250
Aluminum	mg/L						2.4										
Antimony	mg/L						0.00071 J	0.001 J			0.002 U		0.002 U		0.002 U		0.002
Arsenic	mg/L						0.0029	0.0022 J			0.003 J		0.0026 J		0.0036 J		0.0028
Barium	mg/L						0.58	0.3			0.54		0.41		0.58		0.55
Beryllium	mg/L						0.00034 J	0.001 U			0.001 U		0.001 U		0.001 U		0.001
Bicarbonate Alkalinity as CaCO3	mg/L	45	5 U	160	31	290	230	5 U	290	210	260		290		270		240
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.41	0.28	0.41	0.32	0.42	0.5 J		0.46		0.44		0.46		0.43		0.43
Bromide	mg/L																
Cadmium	mg/L						0.00015	0.001 U			0.001 U		0.001 U		0.001 U		0.001
Calcium	mg/L	6	34	9.7	8.2	15	23		29		17		13		29		18
Carbonate Alkalinity as CaCO3	mg/L	310	110	190	310	24	82	220	16	82	30		29		29		8.5
Chloride	mg/L	1100	970	1100	840	1200	1100		1300	1300	1400		1200		1300		1900
Chromium	mg/L						0.0058	0.0029 J			0.0031 J		0.005 U		0.0086		0.0015
Cobalt	mg/L						0.0028	0.00092 J			0.00068 J		0.0002 J		0.0019		0.0003
Conductivity, Field	uS/cm	3442	4166	4034	3449	4555	4443	3565	5341	5141	5797	4254		4707		6905	
Copper	mg/L						0.011										
Dissolved Oxygen, Field	mg/L						6.11	6.39	1.65	2.36	2.3	2.62		3.51		2.73	
Dissolved Solids, Total	mg/L	1800 J	1900	1800	2000	2000	2200		2500 J	2300	2500		2300		2200		3000
Fluoride	mg/L	3.1	2.5	3.1	2.2	3.1	3	2.7	2.9	2.9	2.9		2.9		3		2.5
Iron	mg/L						3.8										
Lead	mg/L						0.0038	0.0017			0.0013		0.001 U		0.004		0.001
Lithium	mg/L						0.046	0.18			0.035		0.036		0.058		0.051
Magnesium	mg/L	2.3	0.88 J	3.1	1.4	4.1	5.2	1.2	5.8		4.6		3.9		4.9		5.1
Manganese	mg/L						0.077										
Mercury	mg/L						0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002
Molybdenum	mg/L						0.077	0.081			0.092		0.1		0.086		0.059
Nickel	mg/L						0.015										
Oxidation-Reduction Potential, Field	mV						26.2	117.8	-33.4	110.5	50	76.1		119.4		-45.8	
pH, Field	pH units	9.85	11.98	9.65	10.59	8.44	8.73	11.63	8.35	8.81	8.64	8.61		8.69		8.15	
Potassium	mg/L	4.3	7.4	4.3	9.8	3.3	3.5	9	4.7		3.3		3		4.4		3.8
Radium-226	pCi/L						1.17	0.93	1.01		0.899		0.881		1.29		0.679
Radium-226/228	pCi/L						2.33	1.91	1.81		1.96		1.8		3.16		1.29
Radium-228	pCi/L						1.16	0.979	0.803		1.06		0.921		1.86		0.615 U
Redox Potential, Field	mV																
Selenium	mg/L						0.0016 J	0.005 U			0.005 U		0.005 U		0.005 U		0.005
Silver	mg/L						0.0015										
Sodium	mg/L	730	640	790	670	860	950	620	920		920		910		840		11000
Strontium	mg/L						1.3										
Sulfate	mg/L	36	30	27	26	25	21		27	19	18		17		17		15
Temperature, Field	deg C	13	14	15	14	15	11	14.4	15.7	15	13.5	15		13.2		18.2	
Thallium	mg/L						0.00043 J	0.00047 J			0.001 U		0.001 U		0.001 U		0.001
Turbidity, Field	NTU	9.8	14.1	7.1	12.6	7	208.8	4.28	254.07	335.01	57.07	14.04		268.29		12.92	
Vanadium	mg/L																
Zinc	mg/L						0.021										

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08	2016-08
	Date	2016-08-24	2016-10-05	2016-11-30	2017-01-31	2017-03-22	2017-04-27	2017-06-07	2018-09-25	2019-03-26	2019-09-22	2020-03-15	2020-03-24	2020-09-17	2021-03-23	2021-09-24	2022-03-29
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L			1580	1400				1700	2000	1800	1100	1900	620	1900	1000	1900
Aluminum	mg/L					4.7 J	0.39	8.1									0.17
Antimony	mg/L	0.00134	0.00083	0.00095	0.00078	0.0012 J	0.0051	0.0013 J									0.002 U
Arsenic	mg/L	0.00795	0.00691	0.00652	0.00489	0.0054	0.0075	0.014									0.0012 J
Barium	mg/L	0.312	0.279	0.416	0.446	0.97 JB	0.7	0.76									1.5
Beryllium	mg/L	4E-05 U	0.000182	0.000123	5.9E-05 J	0.001 U	0.001 U	0.005 U									0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L								5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.318	0.286	0.294	0.279	0.22	0.28 B	0.32	0.1	0.056 J	0.071 J	0.24	0.029 J	0.16	0.1 U	0.17	0.2 U
Bromide	mg/L			5.56	2.93	3.1 J	25 U	5 J									
Cadmium	mg/L	2E-05 J	3E-05 J	5E-05	1E-05 J	0.001 U	0.001 U	0.001 U									0.0001 U
Calcium	mg/L	33.8	48.9	57	80.6	190 B	140	140	340	450	390	190	510	190	620	240	660
Carbonate Alkalinity as CaCO3	mg/L								140	70	100	63	48	100	35	45	83
Chloride	mg/L	452	645	650	879	700	890	1200 J	920	510	610	1500	270	1400	180	860	110
Chromium	mg/L	0.0012	0.0033	0.00434	0.00374	0.011 J	0.0027	0.015 J									0.0024 J
Cobalt	mg/L	0.000353	0.00278	0.00172	0.00095	0.0024	0.00039 J	0.0037									0.00039 J
Conductivity, Field	uS/cm	8521	8800	5904	7708							8027	8693	7699	8172	7178	9065
Copper	mg/L					0.026 JB	0.019	0.043 B									0.0066
Dissolved Oxygen, Field	mg/L	10.52	5.81	6.2	4.23												5.59
Dissolved Solids, Total	mg/L	2480	2660	2730	2750	2700	2900 J	3000	2400	2900	2700	2300 J	1700	2300	2400	1700	2100
Fluoride	mg/L	1.92	1.85	1.56	2.03	2	1.8 J	2.3 J	1.4	0.99	1.1	1.6	0.69	1.4	0.53	0.96	0.51
Iron	mg/L					4.5 JB	0.1 U	8.6									0.1 U
Lead	mg/L	0.000143	0.00216	0.00207	0.000987	0.0044 J	0.001 U	0.006									0.00079
Lithium	mg/L	0.665	0.6	0.702	0.652	0.85	0.75	0.64									0.42
Magnesium	mg/L			0.41	0.162	0.75 JB	1 U	1.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U
Manganese	mg/L					0.031 B	0.005 U	0.051									0.01 U
Mercury	mg/L	2.4E-05	7E-06	3.7E-05	9E-06	0.0002 U	0.0002 U	0.0002 U									0.0002 U
Molybdenum	mg/L	0.121	0.0735	0.0982	0.102	0.094 J	0.12	0.14									0.0088
Nickel	mg/L					0.01	0.004	0.013									0.0054
Oxidation-Reduction Potential, Field	mV																-77.6
pH, Field	pH units	12.52	12.41	12.59	12.45	12.65	12.35	12.42	12.45	12.67	12.43	11.89	12.67	12	12.43	11.59	12.49
Potassium	mg/L			92.4	99.3	110 JB	77	59	44	48	44	23	36	17	31	15	28
Radium-226	pCi/L	0.768	1.06	0.975	1.43	4.8	4.25	2.11									7.91
Radium-226/228	pCi/L	1.898	2.97	2.005	2.62	6.4	5.53	2.43									11.4
Radium-228	pCi/L	1.13	1.91	1.03	1.19	1.6	1.27	0.319 U									3.49
Redox Potential, Field	mV	-71.6	-38.5	-81.2	-89.5												
Selenium	mg/L	0.0028	0.0022	0.0019	0.0012	0.002 J	0.0022 J	0.0043 J									0.0012 J
Silver	mg/L					0.001 U	0.001 UJ	0.00026 J									0.00073 J
Sodium	mg/L			704	747	920 JB	1100	1200 B	830	680	740	1100	310	1100	240	990	210
Strontium	mg/L			3.59	4.23	7.2 JB	6.7	5.7 B									11
Sulfate	mg/L	133	126	120	90.4	71	70	89 J	27	14	16	28	12	23	6.4	15	4.9 J
Temperature, Field	deg C	16	16.2	13.8	13.1							12	14	15	14	14	10
Thallium	mg/L	9E-05 J	7E-05 J	5E-05 J	3E-05 J	0.001 U	0.001 U	0.001 U									0.001 U
Turbidity, Field	NTU	871	253.7	121.7	110.9	108.8	627.3	380.4	17.6		94	6.2	4.2	4.1	0.7	0.5	1.2
Vanadium	mg/L					0.017											
Zinc	mg/L					0.1 U	0.02 U	0.03									0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-08	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09	2016-09
	Date	2022-05-03	2016-08-23	2016-10-03	2016-11-29	2017-01-30	2017-03-21	2017-04-25	2017-06-06	2017-07-12	2018-03-22	2018-09-13	2019-09-24	2020-03-12	2020-09-14	2021-03-19	2021-09-20
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	1700			1250	1830	1400					820	1100	1400	1400	1500	1500
Aluminum	mg/L							1.3	3.3	1.9 B							
Antimony	mg/L	0.002 U	0.00076	0.00087	0.00082	0.00078	0.0014 J	0.0012 J	0.02 U	0.001 JB							
Arsenic	mg/L	0.0027 J	0.0117	0.0145	0.0149	0.0144	0.026 J	0.016	0.016 J	0.016							
Barium	mg/L	1.4	0.684	0.566	0.49	0.433	0.42 JB	0.52	0.53	0.52							
Beryllium	mg/L	0.001 U	8.5E-05	3E-05 J	2E-05 J	2E-05 U	0.001 U	0.001 U	0.001 UJ	0.001 U							
Bicarbonate Alkalinity as CaCO3	mg/L	5 U										5 U	5 U	5 U	5 U	5 U	5 U
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.093	0.411	0.126	0.131	0.19	0.16 J	0.18 B	0.16 B			0.24	0.21	0.13	0.14	0.13
Bromide	mg/L				6.45	5.69	5.8 J	50 U	7.5	5.8 J							
Cadmium	mg/L	0.001 U	6E-05 U	6E-05 U	4E-05 J	1E-05 J	0.001 U	0.001 U	0.01 U	0.001 U							
Calcium	mg/L		78.6	202	49.7	42.3	30 B	35	47	55		16	18	230	79	60	56
Carbonate Alkalinity as CaCO3	mg/L	65										180	120	120	180	150	75
Chloride	mg/L		1500	1520	1490	1520	1600	2000	1700	1600		1800	1200	630	760	750	860
Chromium	mg/L	0.005 U	0.0455	0.0371	0.0299	0.0256	0.027 J	0.025	0.029 J	0.025							
Cobalt	mg/L	0.0002 J	0.00056	0.000324	0.000245	0.000208	0.00092 J	0.00032 J	0.01 U	0.00071 J							
Conductivity, Field	uS/cm	7194	14047	13957	15285	12613					9465			8091	8864	8971	8996
Copper	mg/L							0.013	0.022 B	0.017							
Dissolved Oxygen, Field	mg/L	1.28	5.1	2.86	2.39	2.91					0.32						
Dissolved Solids, Total	mg/L		4820	4480	4180	3900	4100	4300 J	4300	3900 J			2100	2300	2200	2700	2700
Fluoride	mg/L	0.63	1.67	1.58	1.02	1.39	1.9 J	2.1 J	1.8	1.5 J		2	1.9	1.1	0.92	0.97	1
Iron	mg/L							0.1 U	1.2	0.55							
Lead	mg/L	0.001 U	0.00215	0.000743	0.000281	0.000118	0.0021 J	0.001 U	0.001	0.00068 J							
Lithium	mg/L	0.37	0.561	0.082	0.392	0.324	0.23	0.3	0.27	0.25							
Magnesium	mg/L	1 U			0.058	0.006 J		1 U	10 U	0.22 J		1 U	1.2	0.75 J	0.33 J	1 U	1 U
Manganese	mg/L						0.016 B	0.005 U	0.05 U	0.0041 J							
Mercury	mg/L	0.0002 U	1.2E-05	4E-06 J	6E-06	5E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U							
Molybdenum	mg/L	0.023	0.18	0.155	0.149	0.137	0.19 J	0.17	0.17	0.16							
Nickel	mg/L							0.0015 J	0.02 U	0.0031							
Oxidation-Reduction Potential, Field	mV	-150.2															
pH, Field	pH units	11.79	12.49	12.6	12.64	12.66	12.55	12.44	12.46	12.49	12.59	12.07	12.45	12.61	12.6	12.38	12.33
Potassium	mg/L	24			55	48.8	28 JB	31	29	24		15	13	21	12	9.4	9.6
Radium-226	pCi/L	2.69	1.06	0.889	1.34	1.65	1.95	1.33	1.93	1.83 J							
Radium-226/228	pCi/L	2.89	1.924	2.559	1.729	2.472	2.69	2.29	3.76	2.61 J							
Radium-228	pCi/L	0.2 U	0.864	1.67	0.389	0.822	0.744 U	0.966	1.83	0.772 J							
Redox Potential, Field	mV		-68.6	-135.4	-113.7	-112.6											
Selenium	mg/L	0.005 U	0.0042	0.0038	0.0037	0.0029	0.0051 J	0.0029 J	0.05 U	0.0034 JB							
Silver	mg/L							0.001 U	0.00031 J	0.00074 J							
Sodium	mg/L	420			591	997	1700 JB	1600	1700 B	1500		1600	1200	870	930	980	1100
Strontium	mg/L				2.74	2.34	1.8 JB	2.6	1.4 B	2.2							
Sulfate	mg/L		77.1	72.2	73	61.7	64	88 J	65	85		74	56	71	53	44	42
Temperature, Field	deg C	15.3	15.9	15	13.5	9.3					12.8			13	14	13	14
Thallium	mg/L	0.001 U	7E-05 J	4E-05 J	0.0002 U	4E-05 J	0.001 U	0.001 U	0.001 U	0.001 U							
Turbidity, Field	NTU	2.64	8.7	8.6	6.8	2.1	22.3	56.3	35.1	61.3	9	20.8	103	90.4	37.7	21.6	2.3
Vanadium	mg/L																
Zinc	mg/L							0.02 U	0.2 U	0.02 U							

Notes:
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deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
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B: Compound was found in the blank and sample.
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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-09	2016-09	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10
	Date	2021-09-20	2022-03-30	2016-08-23	2016-10-03	2016-11-29	2017-01-30	2017-03-21	2017-04-25	2017-06-06	2017-07-12	2018-04-06	2018-10-01	2019-03-27	2019-09-24	2020-03-30	2020-09-14
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	1500	1300			217	199	170				180 B	140	150	130	150	120
Aluminum	mg/L		0.3						0.05 U	0.5 U	0.035 JB						
Antimony	mg/L		0.0014 J	0.00027	9E-05 J	0.0002 J	0.00023	0.002 U	0.002 U	0.02 U	0.002 U						
Arsenic	mg/L		0.012	0.00323	0.00281	0.00304	0.00443	0.0037 J	0.0025 J	0.05 U	0.0039 J						
Barium	mg/L		0.28	0.235	0.183	0.162	0.339	0.17 JB	0.17	0.25	0.24						
Beryllium	mg/L		0.001 U	8E-05 U	0.0001 U	0.0002 U	1E-05 J	0.001 U	0.001 U	0.001 UJ	0.001 U						
Bicarbonate Alkalinity as CaCO3	mg/L	5 U	5 U									180 B	140	150	130	150	120
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.12	0.4 U	0.449	0.386	0.438	0.421	0.56	0.49	0.57 B	0.54 B	0.55	0.52	0.51	0.47	0.48	0.5
Bromide	mg/L					30.4	35.8	35	53	50	49						
Cadmium	mg/L		6.6E-05 J	4E-05 J	0.0001 U	4E-05 J	0.00026	0.001 U	0.001 U	0.01 U	0.001 U						
Calcium	mg/L	52	48	179	209	254	344	380 B	390	440	500	610	650	550	710	730	680
Carbonate Alkalinity as CaCO3	mg/L	77	140									50 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	870	870	3600	5000	6040	7380	7800	12000	11000	12000	14000	16000	13000	15000	18000	16000
Chromium	mg/L		0.0097	0.0007	0.0003	0.00461	0.00983	0.00071 J	0.002 U	0.02 U	0.0011 J						
Cobalt	mg/L		0.00057	0.000699	0.000869	0.00198	0.00275	0.0015	0.0013	0.0069 J	0.0046						
Conductivity, Field	uS/cm	8996	9317	8802	16158	15133	19419					35660				36786	37634
Copper	mg/L		0.0077 J						0.002 U	0.02 U	0.002 U						
Dissolved Oxygen, Field	mg/L		1.14	3.72	2.77	6.96	4.79					1.53					
Dissolved Solids, Total	mg/L	2200	2800	6820	9040	11000	12600	9600	17000 J	17000	15000 J	20000	23000	16000	24000	37000	26000
Fluoride	mg/L	1.1	1.1	0.66	0.5	0.5 J	0.7 J	2.5 U	5 U	1.3 U	2.5 U	5 U	2.5 U	2.9	2.5 U	2.5 U	0.31 J
Iron	mg/L		0.4 U						0.13	2.9	2.8						
Lead	mg/L		0.0005 U	0.00143	0.000325	0.000492	0.00257	0.00056 J	0.001 U	0.001 U	0.001 U						
Lithium	mg/L		0.12	0.138	0.142	0.189	0.246	0.21	0.23	0.29	0.29						
Magnesium	mg/L	1 U	0.5 U			67.4	91.1		110	160	160	200	210	190	330	220	230
Manganese	mg/L		0.01 U					0.68 B	0.52	1.8	1.4						
Mercury	mg/L		0.00015 J	4E-06 J	5E-06 U	2E-06 J	3E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U						
Molybdenum	mg/L		0.14	0.0367	0.0128	0.0278	0.0258	0.011 J	0.015	0.011 J	0.016						
Nickel	mg/L		0.0034 J						0.0053	0.02 U	0.024						
Oxidation-Reduction Potential, Field	mV		-138.2														
pH, Field	pH units	12.33	12.48	9.79	7.48	8.29	7.68	7.31	7.21	7.51	7.86	7.1	7.11	7.25	7.27	7.35	7.46
Potassium	mg/L	8.8	9.1			30.8	42.9	26 JB	28	29	29	28	29	31 F1	42	31	32
Radium-226	pCi/L		0.295	1.31	1.47	1.32	0.874	0.869	1.05	1.47	1.61 J						
Radium-226/228	pCi/L		0.691 U	2.85	2.5	3.15	2.304	1.71	2.19	3.93	4.91 J						
Radium-228	pCi/L		0.396 U	1.54	1.03	1.83	1.43	0.839	1.14	2.45	3.29						
Redox Potential, Field	mV			70.1	104.1	122.9	103.2										
Selenium	mg/L		0.0031 J	0.001	0.0002 J	0.0005 J	0.0003	0.0015 J	0.005 U	0.05 U	0.0014 JB						
Silver	mg/L		0.0012						0.001 U	0.0008 J	0.00062 J						
Sodium	mg/L	1000	1100			1510	1370	4700 JB	4400	5900 B	6000	7300	7100 B	6900	7600	7400	7900
Strontium	mg/L		2.4			12.1	16.2	20 JB	21	27 B	26						
Sulfate	mg/L	43	43	874	857	897	834	790	1100	640	670	540	560	550	350	400	320
Temperature, Field	deg C	14	14	16.8	15.9	15	11.3					13.5				14	15
Thallium	mg/L		0.00049 J	7E-05 J	0.0002 U	5E-05 U	8E-05 J	0.001 U	0.001 U	0.001 U	0.001 U						
Turbidity, Field	NTU	2.3	8.7	30.6	8.7	2.4	21.9	4.1	77.3	10.1	10.3	4	2.62		7	14	1.3
Vanadium	mg/L																
Zinc	mg/L		0.02 U						0.02 U	0.2 U	0.02 U						

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-10	2016-11	2016-11	2016-11	2016-11	2016-11
	Date	2020-09-14	2021-03-17	2021-09-20	2022-03-30	2022-09-14	2022-10-20	2023-03-27	2023-09-13	2023-09-13	2023-09-13	2024-09-10	2016-08-23	2016-08-26	2017-01-30	2017-03-21	2017-04-25
	Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	120	120	110	36	18	770	25	800		840	50			326	290	
Aluminum	mg/L				1 U												0.05 U
Antimony	mg/L				0.04 U			0.00085 J	0.0031		0.0026	0.0017	0.00533		0.00068	0.002 U	0.00081 J
Arsenic	mg/L				0.04 U			0.0044 J	0.0062		0.0044 J	0.0026	0.0038		0.00586	0.0049 J	0.0022 J
Barium	mg/L				0.51			0.73	0.51		0.51	0.89	0.154		0.681	0.33 JB	0.41
Beryllium	mg/L				0.001 U			0.001 U	0.001 U		0.001 U	0.001	4E-05 U		9.2E-05	0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	120	120	110	36	18	5 U	25	5 U		5 U	3.5					
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.48	0.47	0.43	2.4 U	0.39		0.42	0.3		0.31	0.27	0.278		0.3	0.36	0.35
Bromide	mg/L														10.5	10	11 J
Cadmium	mg/L				0.002 U			0.0003 J	0.00023 J		0.001 U	0.00013	0.0002		0.00027	0.00035 J	0.001 U
Calcium	mg/L	700	680	650	650	550		670	380		370	580	10.3		25	28 B	34
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	28	5 U	73		88	47					
Chloride	mg/L	15000	15000	15000	19000	15000	7000	16000	7300		7300	13000		403	2170	2400	2800
Chromium	mg/L				0.1 U			0.005 U	0.01		0.0063	0.009	0.0349		0.00944	0.037 J	0.002 U
Cobalt	mg/L				0.01 U			0.00087 J	0.0015		0.0012	0.0007	0.000731		0.00238	0.00076 J	0.0013
Conductivity, Field	uS/cm	37634	38220	38449	39405	38197	22220	41279		30140			7110		7954		
Copper	mg/L				0.1 U												0.003
Dissolved Oxygen, Field	mg/L				1.48	1.29	1.01	1.08		1.4			7.22		3.52		
Dissolved Solids, Total	mg/L	26000	23000	22000	23000	18000	11000	25000	9000 J		11000 J	21000		3060	4400	5200	4900 J
Fluoride	mg/L	0.33 J	1 U	2.5 U	5 U	2.5 U	0.65	2.5 U	0.3 J		0.36 J	2.5		2.21	2.01	2.4	2.2 J
Iron	mg/L				2 U												0.1 U
Lead	mg/L				0.0005 U			0.001 U	0.0016		0.0012	0.001	0.00261		0.00424	0.0054 J	0.001 U
Lithium	mg/L				0.51			0.47	1.2		1.1	0.7	0.593		0.086	0.08	0.074
Magnesium	mg/L	220	220	220	260	200		240	110		110	130			9.05		11
Manganese	mg/L				0.39											0.031 B	0.039
Mercury	mg/L		0.0002 U		0.0002 U	0.0002 U		0.0002 U	0.0002 U		0.0002 U	0.0002	8E-06		8E-06	0.0002 U	0.0002 U
Molybdenum	mg/L				0.022			0.018	0.044		0.041	0.017	0.223		0.248	0.14 J	0.14
Nickel	mg/L				0.1 U												0.038
Oxidation-Reduction Potential, Field	mV				-36.9	-91.9	-16.3	50.1		-100.4							
pH, Field	pH units	7.46	7.16	7.46	8.82	9.79	12.26	8.61		10.85			12.23		8.5	8.95	8.35
Potassium	mg/L	29	37	60	150	140		120	620		600	290			32.5	21 JB	15
Radium-226	pCi/L				1.3	2.18		2.45	3.09		2.38	2.05	1.44		1.07	0.934	1
Radium-226/228	pCi/L				7.56	12.1		17.8	10.3		8.76	14.4	2.62		2.041	1.81	1.56
Radium-228	pCi/L				6.26	9.92		15.3	7.18		6.38	12.4	1.18		0.971	0.872	0.564
Redox Potential, Field	mV												-93.7		40.3		
Selenium	mg/L				0.1 U			0.0017 J	0.0034 J		0.0029 J	0.0024	0.0054		0.0007	0.003 J	0.005 U
Silver	mg/L				0.0008 J												0.0001 J
Sodium	mg/L	8100	7500	8000	8900	8400		8400	4800		4900	8600			911	1800 JB	1800
Strontium	mg/L				48										1.72	2.1 JB	2.7
Sulfate	mg/L	350	310	300	360	230	260	170	190		200	110		529	497	560	750
Temperature, Field	deg C	15	14	15	19	15.7	13.5	14.1		15.4			16.2		12.1		
Thallium	mg/L				0.001 U			0.00083 J	0.001 U		0.001 U	0.001	0.000266		0.000105	0.001 U	0.001 U
Turbidity, Field	NTU	1.4	1.2	1.8	7	14.51	45.53	20.25		149.77			7.1		67.4	22.4	73.2
Vanadium	mg/L																
Zinc	mg/L				0.4 U												0.015 J

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2016-11	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-01	2018-02	2018-02	2018-02
	Date	2021-03-17	2019-11-14	2020-03-24	2020-09-22	2021-03-22	2021-09-27	2022-03-25	2022-05-09	2022-07-13	2022-07-13	2022-08-19	2022-09-21	2022-09-21	2019-11-14	2020-04-08	2020-11-16
	Sample Type	N	N	N	N	N	N	N	N	FD	N	N	FD	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		800	680	460	380	290	210	230	300	310	310	250	250		260		
Aluminum	mg/L							0.26										15
Antimony	mg/L							0.002 U	0.002 U	0.00064 J	0.00084 J	0.0007 J						0.001 J
Arsenic	mg/L							0.13	0.13	0.1	0.11	0.11						0.011
Barium	mg/L							0.75	0.69	0.6	0.65	0.58						1.6
Beryllium	mg/L							0.001 U	0.001 U	0.001 U	0.001 U	0.001 U						0.00085 J
Bicarbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U	5 U	5 U	90	37	5 U	5 U	5 U	26	22		260		
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.48	0.9	0.71	0.61	0.56	0.45	0.44 J	0.36	0.39	0.39		0.44	0.45	0.35	0.32	0.38	
Bromide	mg/L																	16
Cadmium	mg/L							0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U						0.001 U
Calcium	mg/L	120	14 B	13	20	27	37	40	34	32	33		31	31	49 B	54	57	
Carbonate Alkalinity as CaCO3	mg/L		370	370	340	320	290	120	200	270	270	250	220	220		5 U		
Chloride	mg/L	6000	1500	2000	2600	3200	3100	3200	3800	3300	3200		3100	3100	3800	4000	200	
Chromium	mg/L							0.0038 J	0.005 U	0.006	0.005 U	0.0031 J						0.22
Cobalt	mg/L							0.00039 J	0.00019 J	0.00045 J	0.001 U	0.00055 J						0.01
Conductivity, Field	uS/cm	16763		7311	8200	8597	8727	10152	98.12		10179	10162	10197	10197		11760	10750	
Copper	mg/L							0.005 U										0.055
Dissolved Oxygen, Field	mg/L							2.41	5.58		1.97	0.71	1.93	1.93				
Dissolved Solids, Total	mg/L	9700	3200	4400	4400	5800	4400	5300	6200	5600	5800		4600	4900	4900	5500	6600	
Fluoride	mg/L	0.92	3.3	3.3	3.3	3	2.8	2.8	2.7	2.8	2.8	2.7	2.2 U	2.2 U	1.8	1.6	0.4 J	
Iron	mg/L							0.23										58
Lead	mg/L							0.0005 U	0.001 U	0.0008 J	0.00065 J	0.001 U						0.0092
Lithium	mg/L							0.04 J	0.008 U	0.0047 J	0.0055 J	0.0069 J						0.075
Magnesium	mg/L	41	2.3	0.3 J	0.21 J	1 U	0.47 J	0.83	0.25 J	0.24 J	0.44 J	1 U	0.3 J	0.3 J	16	18	19	
Manganese	mg/L							0.0054 J										0.39
Mercury	mg/L	0.0002 U						0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U				
Molybdenum	mg/L							0.066	0.072	0.053	0.057	0.057						0.16
Nickel	mg/L							0.017										0.037
Oxidation-Reduction Potential, Field	mV							-160.3	-225.2		-189.7	-303.3	275.6	275.6				
pH, Field	pH units	7.46	12.14	12.09	11.65	11.32	10.78	9.85	10.59		11.08	10.87	10.86	10.86	6.93	7.97	7.96	
Potassium	mg/L	30	3.5	2	2.6	2.8	3.5	4.3	3.4	3.3	3.4	3.3	3.3	3.3	8.1	5.6	7.6	
Radium-226	pCi/L							1.46	1.01	1.02	0.905	0.822	0.965	0.96				
Radium-226/228	pCi/L							3.47	1.57	2.64 J	2.19 J	2.01	2.92	2.11				
Radium-228	pCi/L							2.01	0.565 U	1.62 J	1.29 J	1.19	1.95	1.15				
Redox Potential, Field	mV																	
Selenium	mg/L							0.0027 J	0.0021 J	0.0034 J	0.0044 J	0.0088						0.005 U
Silver	mg/L							0.001 U										0.00046 J
Sodium	mg/L	3400	1100	1300	1600	1800	1900	2600	2200	2300	2100	2200	2100	2100	2200	2400	2200	
Strontium	mg/L							3.9										4.9
Sulfate	mg/L	380	37	39	5 U	35	36	38	36	38	38		42	43	87	65	93	
Temperature, Field	deg C	14		14	16	16	16	12	13.7		17	15.7	15.6	15.6		17	14	
Thallium	mg/L							0.001 U	0.001 U	0.001 U	0.0002 J	0.0019 J						0.001 U
Turbidity, Field	NTU	21.9	42	20.4	16.8	16.9	14.9	6.3	1.63		47.63	4.4	12.6	12.6		305	358	
Vanadium	mg/L																	
Zinc	mg/L							0.02 U										0.25

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2018-02	2018-02	2018-02	2018-02	2018-02	2018-02	2018-02	2018-02	2018-02	2018-02	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03
	Date	2021-04-08	2021-11-03	2022-04-20	2023-03-31	2023-09-21	2023-09-21	2024-03-13	2024-03-13	2024-09-24	2024-09-24	2019-11-14	2020-04-08	2020-11-16	2021-04-08	2021-11-03	2022-04-20	
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	270	250	270											500	530	370	
Aluminum	mg/L													5.8				
Antimony	mg/L				0.0067				0.0012 J		0.00069			0.0023				
Arsenic	mg/L				0.0041 J				0.005		0.0052			0.012				
Barium	mg/L				0.54				0.94		0.7			0.48				
Beryllium	mg/L				0.001 U				0.001 U		0.00027			0.0004 J				
Bicarbonate Alkalinity as CaCO3	mg/L	270	250	270											500	530	370	
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.34	0.37	0.39	0.23		0.31		0.31		0.34	0.31	0.31	0.32	0.31	0.38	0.33	
Bromide	mg/L													5.6				
Cadmium	mg/L				0.00036 J				0.001 U		9.8E-05			0.00027 J				
Calcium	mg/L	68	56	61	42		43		46		51	120 B	34	80	170	140	210	
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U											5 U	5 U	5 U	
Chloride	mg/L	4600	4500	4600	3400		2500		3100		3200	5900	1500	52	1200	1800	630	
Chromium	mg/L				0.03				0.096		0.063			0.016				
Cobalt	mg/L				0.0038				0.0047		0.0029			0.0033				
Conductivity, Field	uS/cm	11240	12120	12570	1483	6149		11167		8749			6569	4938	5300	6385	3727	
Copper	mg/L													0.012				
Dissolved Oxygen, Field	mg/L				8.1	3.46		4.38		5.9								
Dissolved Solids, Total	mg/L	7100	6400	7100	5700		1500		4700		5100	7500	3100	2200	3100	3600	2200	
Fluoride	mg/L	1.5	1.5	1.5	0.92		1.1		1.3		1.2	1.3	1.9	0.87	0.85	1	0.44	
Iron	mg/L													7.7				
Lead	mg/L				0.0046				0.005		0.0032			0.0033				
Lithium	mg/L				0.038				0.063		0.057			0.023				
Magnesium	mg/L	20	18	18	11		15		15		15	33	8.7	11	34	30	48	
Manganese	mg/L													0.26				
Mercury	mg/L																	
Molybdenum	mg/L				0.047				0.11		0.077			0.036				
Nickel	mg/L													0.017				
Oxidation-Reduction Potential, Field	mV				151.7	-106.8		94.7		-9.1								
pH, Field	pH units	7.04	7.31	7.51	7.78	7.65		7.8		7.83		7.29	8.18	8.15	7.45	7.72	7.1	
Potassium	mg/L	6.6	5.2	5.1	3.8		5.6		5.2		4.7	6.7	3.5	5.1	4.7	5.3	4.2	
Radium-226	pCi/L																	
Radium-226/228	pCi/L																	
Radium-228	pCi/L																	
Redox Potential, Field	mV																	
Selenium	mg/L				0.005 U				0.005 U		0.005			0.005 U				
Silver	mg/L													0.00033 J				
Sodium	mg/L	2500	2300	2300	1200		1800		2000		2000	2800	1300	870	980	1200	460	
Strontium	mg/L													1.9				
Sulfate	mg/L	83	61	74	44		100		73		160	150	250	230	520	470	700	
Temperature, Field	deg C	19	12	16	13.5	18.2		14.5		18.5			18	15	18	14	17	
Thallium	mg/L				0.001 U				0.001 U		0.001			0.001 U				
Turbidity, Field	NTU	322	101	58.5	154.07	145.88		106.64		55.67			35.1	159	70.1	65	15.8	
Vanadium	mg/L																	
Zinc	mg/L													0.032				

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03	2018-03
	Date	2022-09-13	2022-09-29	2023-03-01	2023-03-30	2023-04-14	2023-06-13	2023-06-13	2023-08-16	2023-09-21	2023-09-21	2023-10-17	2023-12-15	2023-12-15	2024-02-22	2024-02-22	2024-03-13
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	330																
Aluminum	mg/L																	
Antimony	mg/L			0.00086 J	0.00067 J			0.002 U	0.002 U			0.0011 J		0.002 U		0.00068 J		
Arsenic	mg/L			0.018	0.0066			0.013	0.01			0.011		0.0089		0.012		
Barium	mg/L			0.59	0.13			0.38	0.31			0.31		0.24		0.32		
Beryllium	mg/L			0.001 U	0.001 U			0.001 U	0.001 U			0.001 U		0.001 U		0.001 U		
Bicarbonate Alkalinity as CaCO3	mg/L	330																
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.34			0.43	0.45					0.48	0.43		0.42				
Bromide	mg/L																	
Cadmium	mg/L			0.001 U	0.001 U			0.001 U	0.001 U			0.001 U		0.001 U		0.001 U		
Calcium	mg/L	220			220	110					29	52		110		22		
Carbonate Alkalinity as CaCO3	mg/L	5 U																
Chloride	mg/L			500	650	400					980	920		900				
Chromium	mg/L			0.0051	0.0027 J			0.0045 J	0.0055			0.011		0.0093		0.014		
Cobalt	mg/L			0.0043	0.0078			0.0061	0.0041			0.0042		0.0036		0.0049		
Conductivity, Field	uS/cm	3451					3121			5133			2371		3431			4805
Copper	mg/L																	
Dissolved Oxygen, Field	mg/L						3.08			3.24			3.41		4.08			3.47
Dissolved Solids, Total	mg/L	1600 J		1800	2500	2200					3400	3200		3000				
Fluoride	mg/L			0.59	0.81	0.54		1.1	1.1		0.9	0.96		0.78		0.5		
Iron	mg/L																	
Lead	mg/L			0.0013	0.00058 J			0.0011	0.001			0.0037		0.0031		0.005		
Lithium	mg/L			0.05	0.073			0.036	0.032			0.041		0.051		0.035		
Magnesium	mg/L	54		26	53			21	6.3		8.5	14		28		6.5		
Manganese	mg/L																	
Mercury	mg/L	0.00014 J						0.0002 U	0.0002 U							0.0002 U		
Molybdenum	mg/L			0.0061	0.0032 J			0.0071	0.0057			0.0067		0.0052		0.0065		
Nickel	mg/L																	
Oxidation-Reduction Potential, Field	mV						111.9			-170.9			-160.5		30.3			-140.8
pH, Field	pH units	6.77					7			7.51			7.21		7.85			7.54
Potassium	mg/L	4.7		3.6	4			3.2	2.5		2.9	2.9		3.2		3		
Radium-226	pCi/L		1.42															
Radium-226/228	pCi/L		3.96 J															
Radium-228	pCi/L		2.54 J															
Redox Potential, Field	mV																	
Selenium	mg/L			0.005 U	0.005 U			0.005 U	0.005 U			0.00099 J		0.005 U		0.005 U		
Silver	mg/L																	
Sodium	mg/L	450		1000	220			1100	1300		1300	1100		850		1200		
Strontium	mg/L																	
Sulfate	mg/L			820	820	910					950	950		960				
Temperature, Field	deg C	19					19.2			18.6			13.7		13.7			15.2
Thallium	mg/L			0.001 U	0.001 U			0.001 U	0.001 U			0.001 U		0.001 U		0.001 U		
Turbidity, Field	NTU	66.5					14.53			31.9			114.36		94.04			107.7
Vanadium	mg/L																	
Zinc	mg/L																	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2018-03	2018-03	2018-03	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04	2018-04
	Date	2024-03-13	2024-09-24	2024-09-24	2019-11-14	2020-04-08	2020-11-16	2021-04-08	2022-04-20	2023-03-30	2023-06-13	2023-09-21	2023-09-21	2024-03-13	2024-03-13	2024-09-24	2024-09-24
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L							340	380									
Aluminum	mg/L						58											
Antimony	mg/L	0.0021		0.002			0.0021			0.0024					0.002 U		0.001	
Arsenic	mg/L	0.031		0.0084			0.079			0.022					0.0066		0.0033	
Barium	mg/L	0.24		0.25			0.62			0.19					0.17		0.019	
Beryllium	mg/L	0.0011		0.001			0.0032			0.00099 J					0.001 U		0.001	
Bicarbonate Alkalinity as CaCO3	mg/L							330	380									
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.3		0.51		0.24	0.21	0.19	0.27	0.3			0.29		0.44		0.34	
Bromide	mg/L						0.3 J											
Cadmium	mg/L	0.001 U		0.00011			0.00034 J			0.001 U					0.001 U		0.001	
Calcium	mg/L	65		21		62	74	62	61	67			72		180		69	
Carbonate Alkalinity as CaCO3	mg/L							11	5 U									
Chloride	mg/L	64		1300	25	26	28	33	48	63			61		410		62	
Chromium	mg/L	0.08		0.0086			0.24			0.067					0.0049 J		0.0049	
Cobalt	mg/L	0.027		0.0024			0.088			0.022					0.0055		0.00073	
Conductivity, Field	uS/cm		5432			1675	1977	2093	2086		2186	1216		1251		2603		
Copper	mg/L						0.11											
Dissolved Oxygen, Field	mg/L		2.31								3.73	4.96		4.73		3.86		
Dissolved Solids, Total	mg/L	1400		3800	860	980	1100	1200	1300	1400			1500		3000		1500	
Fluoride	mg/L	0.62		0.97	0.8	0.67	0.5 U	0.74	0.69	0.58			0.59		0.76		0.62	
Iron	mg/L						120											
Lead	mg/L	0.023		0.0032			0.06			0.02					0.0019		0.00071	
Lithium	mg/L	0.033		0.034			0.074			0.03					0.039		0.016	
Magnesium	mg/L	21		6.3		15	32	17	17	21			23		37		18	
Manganese	mg/L						1.7											
Mercury	mg/L																	
Molybdenum	mg/L	0.062		0.0042			0.14			0.069					0.0041 J		0.043	
Nickel	mg/L						0.13											
Oxidation-Reduction Potential, Field	mV		-94.2								86.8	40.2		-33.2		54.6		
pH, Field	pH units		7.8		6.65	7.2	7.68	7.55	7.37		7.68	7.6		7.32		7.6		
Potassium	mg/L	6.2		2.7		3.7	12	5.6	4.3	5.8			5.7		3.5		2.9	
Radium-226	pCi/L																	
Radium-226/228	pCi/L																	
Radium-228	pCi/L																	
Redox Potential, Field	mV																	
Selenium	mg/L	0.0027 J		0.005			0.0043 J			0.0022 J					0.005 U		0.0028	
Silver	mg/L						0.0007 J											
Sodium	mg/L	400		1200		370	300	300	350	400			430		460		450	
Strontium	mg/L						0.96											
Sulfate	mg/L	660		990	490	470	460	510	530	570			620		490		690	
Temperature, Field	deg C		17.2			18	16	19	17		16.5	20.9		20.8		17		
Thallium	mg/L	0.00025 J		0.001			0.0006 J			0.001 U					0.001 U		0.001	
Turbidity, Field	NTU		18.55			46	854	617	384		358.02	357.04		335.09		325.46		
Vanadium	mg/L																	
Zinc	mg/L						0.4											

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2019-02	2019-02	2019-02	2019-02	2019-02	2019-02	2019-02	2019-02	2019-02	2019-06	2019-06	2019-06	2019-06	2019-06	2019-06	2019-06
	Date	2020-09-15	2021-03-16	2021-03-16	2021-09-25	2022-03-25	2022-03-25	2022-05-04	2022-07-13	2022-08-17	2020-09-15	2021-03-16	2021-09-25	2022-05-04	2022-09-16	2023-09-20	2023-09-20
	Sample Type	N	FD	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	1800	1700	1700	1600	1400	1400	1500	1400	1500	220	180	310		170		
Aluminum	mg/L					1.5	1.5										
Antimony	mg/L					0.002 U	0.00084 J	0.002 U	0.002 U	0.002 U							
Arsenic	mg/L					0.0052	0.0052	0.0056	0.009	0.0058							
Barium	mg/L					0.65	0.63	0.71	0.76	0.57							
Beryllium	mg/L					0.001 U	0.001 U	0.001 U	0.001 U	0.001 U							
Bicarbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	220	180	310		170		
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	0.1 U	0.1 U	0.1 U	0.23	0.28	0.25		0.24		
Bromide	mg/L																
Cadmium	mg/L					0.0001 U	0.0001 U	0.001 U	0.001 U	0.001 U							
Calcium	mg/L	220	250	240	230	260	260	230	240	290	27	72	160		230		
Carbonate Alkalinity as CaCO3	mg/L	120	52	53	54	69	69	64	26	16	5.6	5 U	5 U		5 U		
Chloride	mg/L	190	180	190	180	160	150	150	120	110	1900	3800	6500		9400 J		12000
Chromium	mg/L					0.0035 J	0.0034 J	0.005 U	0.011	0.0061							
Cobalt	mg/L					0.00023 J	0.00023 J	0.001 U	0.00085 J	0.0003 J							
Conductivity, Field	uS/cm	8754	8179	8179	7521	7782	7782	7142	6942	7416	7203	11882	18046	22032	25787	11617	
Copper	mg/L					0.0064 J	0.0063 J										
Dissolved Oxygen, Field	mg/L					2.92	2.92	2.94	6.03	6.76				4.81	6.94	7.34	
Dissolved Solids, Total	mg/L	1900	1800	1700	1800	1800	1800	1600	1300	1700	2900	7400	9400		3200		14000
Fluoride	mg/L	0.86	0.7	0.73	0.71	0.6	0.63	0.62	0.59	0.43	1.5	1.3	0.83		0.9 J		0.56
Iron	mg/L					0.1 U	0.1 U										
Lead	mg/L					0.0005 U	0.0005 U	0.001 U	0.0012	0.00065 J							
Lithium	mg/L					0.26	0.25	0.29	0.25	0.23							
Magnesium	mg/L	1 U	1 U	1 U	1 U	0.5 U	0.5 U	1 U	1 U	1 U	7.7	21	52		84		
Manganese	mg/L					0.01 U	0.01 U										
Mercury	mg/L					0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U					0.0002 U		
Molybdenum	mg/L					0.017	0.017	0.017	0.02	0.015							
Nickel	mg/L					0.0024 J	0.0023 J										
Oxidation-Reduction Potential, Field	mV					-123.5	-123.5	-157	-114.9	-96.3				62.9	95.4	85	
pH, Field	pH units	12.62	12.47	12.47	12.26	12.23	12.23	12.14	12.42	12.58	8.46	7.95	7.68	7.46	7.06	8.01	
Potassium	mg/L	33	21	21	16	14	13	12	13	13	3.8	7.2	15		17		
Radium-226	pCi/L					2.05	2.3	1.79	2.05	1.78				3.59	5.21		
Radium-226/228	pCi/L					2.94	3.36	1.93	3.64 J	2.54				4.53	15.7		
Radium-228	pCi/L					0.887	1.07	0.137 U	1.59 J	0.762				0.943	10.4		
Redox Potential, Field	mV																
Selenium	mg/L					0.005 U	0.005 U	0.005 U	0.0018 J	0.0013 J							
Silver	mg/L					0.001 U	0.00052 J										
Sodium	mg/L	560	540	530	550	500	490	420	400	410	1500	2300	3900		5200		
Strontium	mg/L					2.2	2.1										
Sulfate	mg/L	3.1 J	2.8 J	3 J	2.7 J	2.4	2.6	2.3	9.7	6.4	750	710	410		310 J		390
Temperature, Field	deg C	13	12	12	13	12	12	12.7	15.6	14.5	14	13	14	13.7	22.3	18.9	
Thallium	mg/L					0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J							
Turbidity, Field	NTU	19.8	0.6	0.6	0.1	0.6	0.6	0.31	98.41	5.9	13.4	156	146	54.4	47.51	62.68	
Vanadium	mg/L																
Zinc	mg/L					0.02 U	0.02 U										

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2019-06	2019-06	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07	2019-07
	Date	2024-02-22	2024-02-22	2021-09-25	2022-03-24	2022-05-04	2022-07-20	2022-08-18	2022-09-15	2022-11-01	2022-12-12	2023-02-28	2023-04-03	2023-04-13	2023-09-19	2023-09-19	2024-03-11
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L		110	160	190	200	220	230	210		220	220	250	240		230	
Aluminum	mg/L				0.61												
Antimony	mg/L		0.00069 J		0.002 U	0.002 U	0.002 U	0.00058 J			0.001 J	0.002 U	0.002 U	0.0022		0.002 U	
Arsenic	mg/L		0.0026 J		0.0032 J	0.003 J	0.0032 J	0.0023 J			0.0031 J	0.0023 J	0.0025 J	0.016		0.0015 J	
Barium	mg/L		0.56		0.43	0.37	0.55	0.65			0.57	0.57	0.54	1.3		0.58	
Beryllium	mg/L		0.001 U		0.004 U	0.001 U	0.001 U	0.001 U			0.001 U	0.001 U	0.001 U	0.0024		0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L		110	160	190	200	220	230	210		220	220	250	240		230	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.28	0.42	1.1 J	0.47	0.52	0.51	0.55		0.51	0.59	0.56	0.59		0.51	
Bromide	mg/L																
Cadmium	mg/L		0.001 U		0.0004 U	0.001 U	0.001 U	0.00033 J			0.0003 J	0.001 U	0.00023 J	0.00054 J		0.001 U	
Calcium	mg/L		310	740	1000	730	880	840	780				880			960	
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U	5 U	5 U	5 U		5 U	
Chloride	mg/L		11000	16000	16000	17000	17000	19000	18000	18000	18000	19000	18000	18000		23000	
Chromium	mg/L		0.016		0.02 U	0.005 U	0.011	0.017			0.02	0.016	0.0097	0.18		0.029	
Cobalt	mg/L		0.0028		0.0045	0.0067	0.0044	0.0039			0.0057	0.0037	0.0039	0.019		0.0069	
Conductivity, Field	uS/cm	28001		36854	44987	41930	45882	46294	45379	40082	45169	55485	44681		32549		50062
Copper	mg/L				0.02 U												
Dissolved Oxygen, Field	mg/L	7.91			1.67	3.43	1.22	1.68	6.58	7.64	3.53	2.29	1.74		1.9		2.31
Dissolved Solids, Total	mg/L			2900	26000	27000	21000		8200				27000			27000	
Fluoride	mg/L		0.48 J	2.5 U	5 U	5 U	50 U	1 U	2.5 U	2.5 U	1 U	2.5 U	2.5 U	2.5 U		5 U	
Iron	mg/L				2.1												
Lead	mg/L		0.0015		0.002 U	0.001 U	0.00096 J	0.0018 J			0.0016	0.0011	0.00053 J	0.018		0.0016	
Lithium	mg/L		0.22		0.27	0.24	0.29	0.32			0.3	0.35	0.3	0.35		0.34	
Magnesium	mg/L		98	200	250	220	250	280	250		280	280	260	260		280	
Manganese	mg/L				1.6												
Mercury	mg/L		0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	
Molybdenum	mg/L		0.034		0.0098	0.0086	0.0094	0.012			0.011	0.0084	0.0084	0.017		0.0082	
Nickel	mg/L				0.0088 J												
Oxidation-Reduction Potential, Field	mV	169.2			-65	-30.9	-42.4	66	81.2	121.5	58.6	210.9	50.3		101.3		130.4
pH, Field	pH units	7.43		6.93	6.98	6.75	6.8	6.82	7.09	6.67	6.82	6.66	6.82		6.76		6.68
Potassium	mg/L		17	21	25	19	23	24	40		22	22	21	26		22	
Radium-226	pCi/L				1.02	0.806	1.19	1.35	13			0.733	1.08	0.699 U		0.789	
Radium-226/228	pCi/L				1.87	0.98	2.77	2.72 J	33			1.66	1.94 J	2.28 U		1.44 J	
Radium-228	pCi/L				0.847	0.174 U	1.58 U	1.37	19.9			0.923	0.857 J	1.58 U		0.648 U	
Redox Potential, Field	mV																
Selenium	mg/L		0.0012 J		0.0049 J	0.0012 J	0.005 U	0.0027 J			0.005 U	0.0036 J	0.001 J	0.0016 J		0.0023 J	
Silver	mg/L				0.004 U												
Sodium	mg/L		5900	8700	10000	9900	9200	9600	8900		9800	10000	9000	9100		9700	
Strontium	mg/L				62												
Sulfate	mg/L		390	530	510	530	510	480	490	450	470	450	430	410		570	
Temperature, Field	deg C	13.6		14	15	13.4	15.1	15.9	25.6	19.3	10.9	12.6	15.1		15.6		12.9
Thallium	mg/L		0.001 U		0.004 U	0.001 U	0.001 U	0.0012 U			0.00038 J	0.001 U	0.00038 J	0.00082 J		0.001 U	
Turbidity, Field	NTU	37.2		316	62.3	9.1	88.34	85.15	19.75	33.74	1091.9	100.14	48.22		273.8		23.81
Vanadium	mg/L																
Zinc	mg/L				0.08 U												

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2019-07	2019-07	2019-07	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09
	Date	2024-03-11	2024-09-18	2024-09-18	2021-09-25	2022-03-24	2022-08-18	2022-09-16	2022-12-13	2022-12-13	2023-04-03	2023-04-13	2023-06-16	2023-06-16	2023-08-15	2023-08-15	2023-09-21
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	220		220	170	270	210	180	180	170	190	190		180		190	
Aluminum	mg/L					26											
Antimony	mg/L	0.00074 J		0.002		0.002 U	0.0017 J		0.0017 J		0.0014 J	0.0014 J		0.0014 J		0.0019 J	
Arsenic	mg/L	0.005 U		0.0015		0.014	0.037 J		0.026		0.025	0.033		0.015		0.0074	
Barium	mg/L	0.55		0.61		27	25		24		32	31		29		31	
Beryllium	mg/L	0.001 U		0.001		0.003 J	0.0089		0.0045		0.0035	0.006		0.0022		0.001	
Bicarbonate Alkalinity as CaCO3	mg/L	220		220	170	270	210	180	180	170	190	190		180		190	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.55		0.53	0.29	1 J	0.36	0.3		0.34	0.43	0.44		0.47		0.41	
Bromide	mg/L																
Cadmium	mg/L	0.001 U		0.00016		0.00022 J	0.00041 J		0.00085 J		0.00059 J	0.00041 J		0.00022 J		0.00023 J	
Calcium	mg/L	910		1200	690	1200	800	620		830	880					860	
Carbonate Alkalinity as CaCO3	mg/L	5 U		5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U		5 U	
Chloride	mg/L	20000		23000	16000	18000	18000	18000 J		19000	19000	19000		20000		18000	
Chromium	mg/L	0.0026 J		0.099		0.19	0.42		0.34		0.16	0.37		0.15		0.065	
Cobalt	mg/L	0.008		0.015		0.016	0.069		0.061		0.04	0.069		0.034		0.012	
Conductivity, Field	uS/cm		48788		39000	44025	46681	40991	42856		39223		18069		32455		24781
Copper	mg/L					0.02 U											
Dissolved Oxygen, Field	mg/L		1.78			0.46	0.69	6.2	7.45		1.6		7.58		4.39		7.57
Dissolved Solids, Total	mg/L	25000		31000	5500	24000		17000		28000 H	28000			29000		28000	
Fluoride	mg/L	5 U		5	2.5 U	5 U	1 U	1 J	1 U	1 U	2.5 U	2.5 U		5 U		2.5 U	
Iron	mg/L					140											
Lead	mg/L	0.001 U		0.00055		0.045	0.072		0.049		0.019	0.062		0.024		0.0076 J	
Lithium	mg/L	0.3		0.28		0.3	0.51 J		0.36		0.37	0.45		0.35		0.32	
Magnesium	mg/L	280		270	220	310	310	280	280	300	310	320		310		290	
Manganese	mg/L					3.5											
Mercury	mg/L	0.0002 U		0.0002		0.0002 U	0.00021	0.00054 J	0.00031 B		0.0002 U	0.0002 U		0.0002 U		0.0002 U	
Molybdenum	mg/L	0.0053		0.015		0.0074 J	0.061		0.048		0.037	0.054		0.024		0.043	
Nickel	mg/L					0.069											
Oxidation-Reduction Potential, Field	mV		73.1			-173.5	-145.1	135.4	69.9		-112.6		230		17.9		191.2
pH, Field	pH units		6.58		7.32	7.18	7.01	6.42	6.48		6.94		6.53		6.95		6.32
Potassium	mg/L	21		22	26	38	44	82	35	34	33	40		34 J		28	
Radium-226	pCi/L	0.742 J		0.638		36.3	39.8		43.2		46.1	37.1		36.7		34.8 J	
Radium-226/228	pCi/L	2.04 J		1.9		102	111		109		116	105		99.8		104 J	
Radium-228	pCi/L	1.3 J		1.26		65.9	70.8		65.9 G		70.2	67.9		63.1		69 J	
Redox Potential, Field	mV																
Selenium	mg/L	0.0014 J		0.005		0.0077 J	0.0091 J		0.0018 J		0.002 J	0.0017 J		0.0012 J		0.0016 J	
Silver	mg/L					0.004 U											
Sodium	mg/L	10000		11000	7600	8900	8600	5500	7600	8400	8700	9200		9300		9800	
Strontium	mg/L					64											
Sulfate	mg/L	320		380	50 U	100 U	20 U	2.1		20 U	50 U	50 U		8.6 J		50 U	
Temperature, Field	deg C		18.1		13	13	16.3	17.2	8.1		13		16.2		15.3		15.9
Thallium	mg/L	0.00033 J		0.001		0.004 U	0.001 U		0.0012		0.0015	0.00068 J		0.001 U		0.00062 J	
Turbidity, Field	NTU		32.34		556	1270.5	1752.32	1024.97	1216.19		738.15		572.36		572.17		319.92
Vanadium	mg/L																
Zinc	mg/L					0.12											

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2019-09	2022-02	2022-02	2022-02	2022-02	2022-02	2022-03	2022-03	2022-03
	Date	2023-09-21	2023-12-14	2023-12-14	2023-12-14	2024-03-12	2024-03-12	2024-09-17	2024-09-17	2024-06-27	2024-06-27	2024-06-27	2024-09-12	2024-09-12	2023-09-20	2023-09-20	2024-03-12
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	190		170 B	170 B		190		170		270	270		280		230	
Aluminum	mg/L																
Antimony	mg/L	0.002 U			0.00063 J		0.002 U		0.002			0.00095 J		0.0016 J		0.00068 J	
Arsenic	mg/L	0.0028 J			0.0059		0.0058		0.0031			0.0026 J		0.0054 J		0.0041 J	
Barium	mg/L	28			29		27		34			0.45		0.67		0.32	
Beryllium	mg/L	0.001 U			0.001 U		0.001 U		0.001			0.001 U		0.0019		0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L	190		170 B	170 B		190		170		270	270		280		230	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.39		0.41			0.39		0.42		0.37			0.41		0.35	
Bromide	mg/L																
Cadmium	mg/L	0.001 U			0.001 U		0.001 U		0.001			0.001 U		0.00015 J		0.001 U	
Calcium	mg/L	890		900	910		850		1200		18	18		22		270	
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U	5 U		5 U		5		5 U	5 U		5 U		5 U	
Chloride	mg/L	23000		19000			19000		22000		2000			2100		14000	
Chromium	mg/L	0.026			0.048		0.049		0.017			0.005 U		0.022		0.005 U	
Cobalt	mg/L	0.0049			0.0081		0.0066		0.0031			0.001 U		0.0049		0.0019	
Conductivity, Field	uS/cm		49621			47092		48373		6813			7134		29657		35061
Copper	mg/L																
Dissolved Oxygen, Field	mg/L		4.44			3.32		1.13		0.91			8.96		1.02		1.34
Dissolved Solids, Total	mg/L	26000		25000			24000		29000 J		3500			2900		18000	
Fluoride	mg/L	1.3 U		1 U	0.5 U		1 U		5		2.2	2.2		2.3		1.1	
Iron	mg/L																
Lead	mg/L	0.0034			0.0055		0.0052		0.0019			0.001 U		0.01		0.0014	
Lithium	mg/L	0.27			0.26		0.27		0.27			0.044 J		0.052		0.75	
Magnesium	mg/L	280		300	300		260		300		5.7	5.8		10		100	
Manganese	mg/L																
Mercury	mg/L	0.0002 U			0.00014 J		0.0002 U		0.0002			0.0002 U		0.0002 U		0.0002 U	
Molybdenum	mg/L	0.012			0.033		0.039		0.026			0.095		0.11		0.2	
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV		-92.9			-120.9		-116.1		24.3			86.5		64.9		-132.4
pH, Field	pH units		6.81			7.02		6.87		8.1			8.16		7.21		7.28
Potassium	mg/L	26		26	27		24		26		3.9	3.5		7.2		26	
Radium-226	pCi/L	34.7			39.4		29.3		37.8			0.463				1.35	
Radium-226/228	pCi/L	90.4			123		78		124			0.859				4.26	
Radium-228	pCi/L	55.7			83.7 G		48.7		86.6 G			0.396 U				2.91	
Redox Potential, Field	mV																
Selenium	mg/L	0.005 U			0.005 U		0.0023 J		0.005			0.005 U		0.0029 J		0.016	
Silver	mg/L																
Sodium	mg/L	9100		9400	9700		8800		11000		1400	1300		1500		7800	
Strontium	mg/L																
Sulfate	mg/L	150		20 U			100 U		100		130			140		1000	
Temperature, Field	deg C		7.9			10.9		17		20			18.2		15.6		14.2
Thallium	mg/L	0.001 U			0.001 U		0.001 U		0.001			0.001 U		0.001 U		0.001 U	
Turbidity, Field	NTU		314.83			182.32		118.22		6.23			215.49		19.08		9.28
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-03	2022-04
	Date	2024-03-12	2024-04-12	2024-04-12	2024-04-12	2024-06-28	2024-06-28	2024-06-28	2024-09-04	2024-09-04	2024-09-04	2024-09-27	2024-09-27	2024-10-17	2024-10-17	2024-10-17	2023-09-15
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	270		240	240		100	150		200	220		180		210	220	
Aluminum	mg/L																
Antimony	mg/L	0.00071 J			0.002 U			0.002 U			0.002 U		0.002			0.002 U	
Arsenic	mg/L	0.0028 J			0.0021 J			0.0014 J			0.0019 J		0.0013			0.0013 J	
Barium	mg/L	0.3			0.35			0.75			0.64		0.78			0.79	
Beryllium	mg/L	0.001 U			0.001 U			0.001 U			0.001 U		0.001			0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L	270		240	240		100	150		200	220		180		210	220	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.44		0.38			0.28			0.31			0.37		0.33		
Bromide	mg/L																
Cadmium	mg/L	0.001 U			0.001 U			0.001 U			0.001 U		0.00045			0.00013 J	
Calcium	mg/L	280		370	380		380	410		400	350		350		370	370	
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U	5 U		5 U	5 U		5 U	5 U		5		5	5 U	
Chloride	mg/L	13000		14000			17000			18000			17000		19000		
Chromium	mg/L	0.0013 J			0.005 U			0.005 U			0.0013 J		0.005			0.0013 J	
Cobalt	mg/L	0.0023			0.0017			0.0015			0.0019		0.0016			0.0016	
Conductivity, Field	uS/cm		36554			43404			43014			41932		42940			1126
Copper	mg/L																
Dissolved Oxygen, Field	mg/L		0.14			0.39			0.9			0.41		0.84			1.54
Dissolved Solids, Total	mg/L	16000		22000			22000			23000			23000		15000		
Fluoride	mg/L	0.68 J		2.5 U	2.5 U		1.3 U	2.5 U		0.72	0.66		5		5	5 U	
Iron	mg/L																
Lead	mg/L	0.0007 J			0.001 U			0.001 U			0.0018		0.00062			0.001 U	
Lithium	mg/L	0.63			0.55			0.72			0.6		0.64			0.64	
Magnesium	mg/L	100		140	130		140	150		140	130		150		140	140	
Manganese	mg/L																
Mercury	mg/L	0.0002 U			0.0002 U			0.0002 U			0.0002 U		0.0002			0.0002 U	
Molybdenum	mg/L	0.2			0.14			0.18			0.18		0.18			0.17	
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV		15.4			-101.6			-59.7			-0.8		-9			-21.5
pH, Field	pH units		7.12			7.31			7.26			7.26		7.26			7.15
Potassium	mg/L	24		20	20		24	23		22	22		24		25	24	
Radium-226	pCi/L	1.18			1.41			1.52			1.67		1.54			0.969	
Radium-226/228	pCi/L	2.89 J			3.2			4.46			4.32		4.71			4.59	
Radium-228	pCi/L	1.71 J			1.79			2.94			2.65		3.18			3.62	
Redox Potential, Field	mV																
Selenium	mg/L	0.014			0.0045 J			0.0011 J			0.0051		0.0029			0.0025 J	
Silver	mg/L																
Sodium	mg/L	7200		7300	7600		9300	7500		8800	7900		9300		8800	8800	
Strontium	mg/L																
Sulfate	mg/L	690		410			25 U			330			250		280		
Temperature, Field	deg C		13			22.5			19.2			17.4		15.2			16
Thallium	mg/L	0.001 U			0.0002 J			0.01 U			0.001 U		0.001			0.001 U	
Turbidity, Field	NTU		7.74			9.07			7.33			9.17		18.04			120.05
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
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deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04	2022-04
	Date	2023-09-15	2024-03-06	2024-03-06	2024-04-11	2024-04-11	2024-04-11	2024-07-01	2024-07-01	2024-07-01	2024-07-01	2024-07-01	2024-07-01	2024-09-03	2024-09-03	2024-09-03	2024-09-03	2024-09-12	2024-09-12
	Sample Type	N	N	N	N	N	N	FD	FD	N	N	N	N	N	N	N	N	FD	N
Analyte	Unit																		
Alkalinity, Total as CaCO3	mg/L	500		500		500	510	490	490		490	490		500	500	510			
Aluminum	mg/L																		
Antimony	mg/L	0.002 U		0.002 U			0.002 U		0.0008 J			0.00057 J			0.002 U	0.002			
Arsenic	mg/L	0.0021 J		0.0013 J			0.0011 J		0.0018 J			0.0011 J			0.0011 J	0.005			
Barium	mg/L	0.13		0.1			0.1		0.087			0.09			0.092	0.093			
Beryllium	mg/L	0.001 U		0.001 U			0.001 U		0.001 U			0.001 U			0.00029 J	0.001			
Bicarbonate Alkalinity as CaCO3	mg/L	500		500		500	510	490	490		490	490		500	500	510			
Bicarbonate Alkalinity as HCO3	mg/L																		
Boron	mg/L	0.68		0.74		0.74		0.68			0.65			0.79		0.79			
Bromide	mg/L																		
Cadmium	mg/L	0.001 U		0.001 U			0.001 U		0.001 U			0.001 U			0.001 U	0.001			
Calcium	mg/L	100		110		110	120	97	100		93	100		110	120	120			
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U		5 U	5 U	5 U	5 U		5 U	5 U		5 U	5 U	5			
Chloride	mg/L	34		34		33		30			30			36		35			
Chromium	mg/L	0.0065		0.0024 J			0.0018 J		0.005 U			0.005 U			0.005 U	0.005			
Cobalt	mg/L	0.0018		0.00087 J			0.00058 J		0.00035 J			0.00034 J			0.00035 J	0.00026			
Conductivity, Field	uS/cm		1225		1180					1134			1161						1203
Copper	mg/L																		
Dissolved Oxygen, Field	mg/L		1.95		0.21					0.43			0.52						0.77
Dissolved Solids, Total	mg/L	620		620		610		620			600			600		670			
Fluoride	mg/L	0.14		0.11		0.1	0.12	0.11	0.11		0.11	0.11		0.1	0.096	0.081			
Iron	mg/L																		
Lead	mg/L	0.0016		0.00073 J			0.00058 J		0.001 U			0.001 U			0.001 U	0.001			
Lithium	mg/L	0.026		0.021			0.024		0.024			0.024			0.02	0.023			
Magnesium	mg/L	31		32		31	36	30	31		29	31		35	35	38			
Manganese	mg/L																		
Mercury	mg/L	0.0002 U		0.0002 U			0.0002 U		0.0002 U			0.0002 U			0.0002 U	0.0002			
Molybdenum	mg/L	0.0034 J		0.0013 J			0.0012 J		0.0012 J			0.0012 J			0.0013 J	0.005			
Nickel	mg/L																		
Oxidation-Reduction Potential, Field	mV		-92.9		-57.1					-73.1			-61.1						-22
pH, Field	pH units		7.25		6.88					6.8			6.96						6.93
Potassium	mg/L	4.4		3.6		3.7	4	3.5	3.5		3.4	3.6		3.8	3.9	4.1			
Radium-226	pCi/L	0.22 U		0.255 J			0.118 U		0.273			0.259			0.168	0.139 U			
Radium-226/228	pCi/L	1.59 J		0.249 J			0.373 U		0.39 U			0.474 U			0.463 U	0.278 U			
Radium-228	pCi/L	1.37 J		-0.00608 U			0.255 U		0.117 U			0.215 U			0.294 U	0.138 U			
Redox Potential, Field	mV																		
Selenium	mg/L	0.005 U		0.005 U			0.005 U		0.005 U			0.005 U			0.005 U	0.005			
Silver	mg/L																		
Sodium	mg/L	96		88		97	86	100	99		100	99		86	91	81			
Strontium	mg/L																		
Sulfate	mg/L	100		90		89		78			79			91		88			
Temperature, Field	deg C		13.7		14.1					17.4			18						19.3
Thallium	mg/L	0.001 U		0.001 U			0.00025 J		0.00039 J			0.001 U			0.001 U	0.001			
Turbidity, Field	NTU		57.47		33.36					8.97			2.56						2.09
Vanadium	mg/L																		
Zinc	mg/L																		

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-04	2022-04	2022-04	2022-04	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05
	Date	2024-09-12	2024-10-16	2024-10-16	2024-10-16	2023-09-15	2023-09-15	2024-03-06	2024-03-06	2024-04-11	2024-04-11	2024-04-11	2024-06-28	2024-06-28	2024-06-28	2024-09-03	2024-09-03
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	510		480	490		330		320		290	290		290	270		190
Aluminum	mg/L																
Antimony	mg/L	0.002			0.002 U		0.0012 J		0.002 U			0.002 U			0.002 U		
Arsenic	mg/L	0.0013			0.00086 J		0.0047 J		0.0057			0.0059			0.0053		
Barium	mg/L	0.091			0.094		0.18		0.36			0.81			1.9		
Beryllium	mg/L	0.00031			0.001 U		0.001 U		0.001 U			0.001 U			0.001 U		
Bicarbonate Alkalinity as CaCO3	mg/L	510		480	490		330		320		290	290		290	270		190
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.79		0.72			0.31		0.36		0.37			0.36			0.39
Bromide	mg/L																
Cadmium	mg/L	8.6E-05			0.001 U		0.001 U		0.001 U			0.001 U			0.001 U		
Calcium	mg/L	120		110	110		14		14		36	29		34	61		88
Carbonate Alkalinity as CaCO3	mg/L	5		5 U	5 U		5 U		5 U		5 U	5 U		5 U	5 U		5 U
Chloride	mg/L	35		32			730		1100		2400			2600			5100
Chromium	mg/L	0.005			0.005 U		0.0024 J		0.005 U			0.0014 J			0.005 U		
Cobalt	mg/L	0.0003			0.00034 J		0.00043 J		0.00033 J			0.00049 J			0.00065 J		
Conductivity, Field	uS/cm		1246			3186		4861		8251			14463			14603	
Copper	mg/L																
Dissolved Oxygen, Field	mg/L		0.94			1.56		2.34		1.08			1.49			0.66	
Dissolved Solids, Total	mg/L	640		590			1500		2200		3900			4600			3300
Fluoride	mg/L	0.087		0.11	0.11		2.1		2.6		1.6	2		1.7	1.6		1.3
Iron	mg/L																
Lead	mg/L	0.001			0.001 U		0.00049 J		0.001 U			0.00051 J			0.001 U		
Lithium	mg/L	0.023			0.025		0.026		0.025			0.042			0.064		
Magnesium	mg/L	37		32	35		4.1		4.1		11	9.2		11	20		27
Manganese	mg/L																
Mercury	mg/L	0.0002			0.0002 U		0.0002 U		0.0002 U			0.0002 U			0.0002 U		
Molybdenum	mg/L	0.0016			0.0018 J		0.063		0.077			0.063			0.037		
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV		-32.3			-243.5		-199.3		-201.8			-152.6			-191	
pH, Field	pH units		6.73			8.43		8.36		8.04			7.6			7.7	
Potassium	mg/L	4		4	4.1		2.7		2.1		3.5	3.2		3.6	5		6.1
Radium-226	pCi/L	0.147 U			0.305		0.359 U		0.469 J			0.604			2.31		
Radium-226/228	pCi/L	0.309 U			0.842		2.09 J		1.21 J			1.93			4.59		
Radium-228	pCi/L	0.162 U			0.537 U		1.73 J		0.745			1.32			2.28		
Redox Potential, Field	mV																
Selenium	mg/L	0.0025			0.005 U		0.0013 J		0.005 U			0.001 J			0.005 U		
Silver	mg/L																
Sodium	mg/L	79		100	95		640		940		1600	1500		1600	2300		2700
Strontium	mg/L																
Sulfate	mg/L	88		83			180		170		110			100			36
Temperature, Field	deg C		13.6			15.7		13.6		14.4			20.6			19.1	
Thallium	mg/L	0.001			0.001 U		0.0002 J		0.001 U			0.00058 J			0.001 U		
Turbidity, Field	NTU		14.74			27.71		8.33		5.78			3.67			2.91	
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-05	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06
	Date	2024-09-03	2024-09-12	2024-09-12	2024-10-15	2024-10-15	2024-10-15	2024-10-15	2024-10-15	2023-09-19	2023-09-19	2024-03-08	2024-03-08	2024-04-12	2024-04-12	2024-04-12	2024-07-03
	Sample Type	N	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	200		200	210	240		200	230		500		510		520	510	
Aluminum	mg/L																
Antimony	mg/L	0.002 U		0.0019		0.002 U			0.002 U		0.00068 J		0.002 U			0.002 U	
Arsenic	mg/L	0.0048 J		0.0057		0.0037 J			0.0042 J		0.0018 J		0.0013 J			0.0014 J	
Barium	mg/L	2.5		2.5		1.5			1.6		0.35		0.31			0.32	
Beryllium	mg/L	0.001 U		0.00045		0.001 U			0.001 U		0.001 U		0.001 U			0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L	200		200	210	240		200	230		500		510		520	510	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L			0.37	0.36			0.37			0.12		0.12		0.11		
Bromide	mg/L																
Cadmium	mg/L	0.001 U		0.0002		0.001 U			0.001 U		0.001 U		0.001 U			0.001 U	
Calcium	mg/L	89		75	92	58		95	62		70		60		58	61	
Carbonate Alkalinity as CaCO3	mg/L	5 U		5	5 U	5 U		5 U	5 U		5 U		5 U		5 U	5 U	
Chloride	mg/L			4800	4800			4800			120		98		100		
Chromium	mg/L	0.005 U		0.005		0.005 U			0.005 U		0.005		0.002 J			0.0016 J	
Cobalt	mg/L	0.00069 J		0.00068		0.00069 J			0.00069 J		0.0029		0.0017			0.0014	
Conductivity, Field	uS/cm		15193				14687			1169		1275		1281			1197
Copper	mg/L																
Dissolved Oxygen, Field	mg/L		0.44				0.98			1.87		1.81		0.43			2.73
Dissolved Solids, Total	mg/L			5300	7400			7600			760		700		770		
Fluoride	mg/L	1.2		0.98	1.1	1.3		1.1	1.3		0.7		0.87		0.83	0.9	
Iron	mg/L																
Lead	mg/L	0.001 U		0.001		0.001 U			0.001 U		0.0021		0.001 U			0.00056 J	
Lithium	mg/L	0.078		0.075		0.063			0.065		0.015		0.012			0.012	
Magnesium	mg/L	27		25	28	17		28	18		15		13		12	13	
Manganese	mg/L																
Mercury	mg/L	0.0002 U		0.0002		0.0002 U			0.0002 U		0.0002 U		0.0002 U			0.0002 U	
Molybdenum	mg/L	0.027		0.031		0.041			0.04		0.014		0.0082			0.0085	
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV		-216.8				-185			83.1		-132.9		-148.3			-33.4
pH, Field	pH units		7.77				7.76			7.08		7.17		7.37			7.13
Potassium	mg/L	6		5.7	6.4	4.9		6.5	5.1		3.1		2.1		1.9	2.1	
Radium-226	pCi/L	1.23		1.02		1.4			1.45		0.881		0.58 J			0.677	
Radium-226/228	pCi/L	2.81		2.3		3.09 J			2.96 J		1.64 J		0.937 J			1.25	
Radium-228	pCi/L	1.58		1.28		1.7 J			1.51 J		0.763 J		0.357 U			0.57 U	
Redox Potential, Field	mV																
Selenium	mg/L	0.005 U		0.0034		0.005 U			0.005 U		0.005 U		0.005 U			0.005 U	
Silver	mg/L																
Sodium	mg/L	2900		3100	3200	2200		3000	2200		210		210		200	210	
Strontium	mg/L																
Sulfate	mg/L			36	56			53			55		27		24		
Temperature, Field	deg C		19.4				13.9			15.8		14.6		12.8			26.2
Thallium	mg/L	0.001 U		0.00063		0.001 U			0.001 U		0.001 U		0.001 U			0.001 U	
Turbidity, Field	NTU		4.34				3.34			54.2		19.13		17.65			77.04
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-06	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12
	Date	2024-07-03	2024-07-03	2024-09-04	2024-09-04	2024-09-04	2024-09-13	2024-09-13	2024-10-18	2024-10-18	2024-10-18	2024-10-18	2023-09-21	2023-09-21	2024-03-15	2024-03-15	2024-04-15	2024-04-15	2024-04-15
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																		
Alkalinity, Total as CaCO3	mg/L	500	500		510	510		520		520	520		280		280		280		
Aluminum	mg/L																		
Antimony	mg/L		0.002 U			0.002 U		0.002			0.002 U		0.002 U		0.002 U				
Arsenic	mg/L		0.0012 J			0.002 J		0.0027			0.0015 J		0.005 U		0.005 U				
Barium	mg/L		0.26			0.29		0.34			0.32		0.019		0.017				
Beryllium	mg/L		0.001 U			0.001 U		0.001			0.001 U		0.001 U		0.001 U				
Bicarbonate Alkalinity as CaCO3	mg/L	500	500		510	510		520		520	520		280		280		280		
Bicarbonate Alkalinity as HCO3	mg/L																		
Boron	mg/L	0.12			0.13			0.13		0.12			0.067 J		0.061 J		0.072 J		
Bromide	mg/L																		
Cadmium	mg/L		0.001 U			0.001 U		0.001			0.001 U		0.001 U		0.001 U				
Calcium	mg/L	59	62		61	59		62		61	61		95		83		90		
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U		5 U	5 U		5		5 U	5 U		5 U		5 U		5 U		
Chloride	mg/L	150			190			130		140			23		20		19		
Chromium	mg/L		0.0012 J			0.0022 J		0.0049			0.0019 J		0.005 U		0.005 U				
Cobalt	mg/L		0.00093 J			0.0014		0.0019			0.0013		0.00032 J		0.00021 J				
Conductivity, Field	uS/cm			1498			1420		1558			1036		1079		1061			
Copper	mg/L																		
Dissolved Oxygen, Field	mg/L			2.29			0.6		0.79			1.48		2.18		2.08			
Dissolved Solids, Total	mg/L	790			820			770		710			620		660		930		
Fluoride	mg/L	0.75	0.75		0.81	0.71		0.83		0.95	0.98		0.08		0.11		0.1		
Iron	mg/L																		
Lead	mg/L		0.001 U			0.00089 J		0.0015			0.00049 J		0.001 U		0.001 U				
Lithium	mg/L		0.013			0.0086		0.016			0.014		0.018 J		0.023				
Magnesium	mg/L	13	13		13	13		13		13	13		25		24		25		
Manganese	mg/L																		
Mercury	mg/L		0.0002 U			0.0002 U		0.0002					0.0002 U		0.0002 U				
Molybdenum	mg/L		0.015			0.012		0.011			0.0097		0.0016 J		0.005 U				
Nickel	mg/L																		
Oxidation-Reduction Potential, Field	mV			-113.3			-149.1		-133.9			95.5		-4		118.2			
pH, Field	pH units			7.42			7.1		7.07			7.22		7.27		7.21			
Potassium	mg/L	2.3	2.2		2.1	2.3		2.8		2.1 J	2.2 J		3		2.8		2.9		
Radium-226	pCi/L		0.787			0.694		0.832			0.678		0 U		0.298 U				
Radium-226/228	pCi/L		1.31			1.69		2.04			1.99		1.23 J		0.981				
Radium-228	pCi/L		0.524 U			0.995 U		1.21 G			1.31		1.23 J		0.683 U				
Redox Potential, Field	mV																		
Selenium	mg/L		0.005 U			0.005 U		0.005			0.005 U		0.005 U		0.005 U				
Silver	mg/L																		
Sodium	mg/L	230	230		240	240		240		250	260		110		110		110		
Strontium	mg/L																		
Sulfate	mg/L	33			30			29		25			370		270		260		
Temperature, Field	deg C			18.9			22.6		13.9			15.1		13.9		14.8			
Thallium	mg/L		0.001 U			0.001 U		0.001			0.001 U		0.001 U		0.00038 J				
Turbidity, Field	NTU			42.61			76.35		29.96			70.04		36.57		10.26			
Vanadium	mg/L																		
Zinc	mg/L																		

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-12	2022-13	2022-13	2022-13	2022-13
	Date	2024-04-15	2024-07-02	2024-07-02	2024-07-02	2024-08-30	2024-08-30	2024-08-30	2024-09-26	2024-09-26	2024-10-16	2024-10-16	2024-10-16	2023-09-22	2023-09-22	2024-03-15	2024-03-15
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	280		280	280		280	280		290		270	270		140		170
Aluminum	mg/L																
Antimony	mg/L	0.002 U			0.0007 J			0.002 U		0.002			0.002 U		0.002 U		0.002 U
Arsenic	mg/L	0.005 U			0.005 U			0.005 U		0.005			0.005 U		0.0049 J		0.0018 J
Barium	mg/L	0.015			0.014			0.015		0.016			0.012		0.19		0.26
Beryllium	mg/L	0.001 U			0.001 U			0.001 U		0.001			0.001 U		0.001 U		0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	280		280	280		280	280		290		270	270		130		170
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L			0.072 J			0.087 J			0.077		0.088 J			0.2		0.23
Bromide	mg/L																
Cadmium	mg/L	0.001 U			0.001 U			0.00021 J		0.001			0.001 U		0.001 U		0.001 U
Calcium	mg/L	90		85	81		83	85		84		89	86		12		15
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U	5 U		5 U	5 U		5		5 U	5 U		13		5 U
Chloride	mg/L			18			17			16		16			1300		1800
Chromium	mg/L	0.005 U			0.005 U			0.005 U		0.0016			0.005 U		0.0028 J		0.005 U
Cobalt	mg/L	0.001 U			0.00026 J			0.00032 J		0.00035			0.001 U		0.00059 J		0.00027 J
Conductivity, Field	uS/cm		1030			1069			1051		1098			4233		6061	
Copper	mg/L																
Dissolved Oxygen, Field	mg/L		1.29			1.14			2.06		1.49			0.72		1.37	
Dissolved Solids, Total	mg/L			670			560			680		600			2200		2800
Fluoride	mg/L	0.14		0.11	0.12		0.1	0.099 J		0.12		0.12	0.13		2.8		2
Iron	mg/L																
Lead	mg/L	0.001 U			0.001 U			0.001 U		0.001			0.001 U		0.00064 J		0.001 U
Lithium	mg/L	0.02			0.018			0.019		0.019			0.02		0.018 J		0.031
Magnesium	mg/L	25		25	24		24	25		25		26	24		3.1		3.9
Manganese	mg/L																
Mercury	mg/L	0.0002 U			0.0002 U			0.0002 U		0.0002			0.0002 U		0.0002 U		0.0002 U
Molybdenum	mg/L	0.005 U			0.0011 J			0.005 U		0.005			0.005 U		0.075		0.082
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV		23.7			97.3			62		72.3			-60.8		-111.9	
pH, Field	pH units		7.18			7.2			7.19		7.1			8.69		8.22	
Potassium	mg/L	3		2.8	2.8		3	3.1		3.2		3.4	3		2.5		2.4
Radium-226	pCi/L	0.142 U			0.111 U			0.0915 U		0.46			0.0419 U		0.423		0.39
Radium-226/228	pCi/L	0.18 U			0.052 U			0.123 U		1.14			0.262 U		1.12		0.965
Radium-228	pCi/L	0.0381 U			-0.0591 U			0.0317 U		0.675 U			0.22 U		0.698		0.575
Redox Potential, Field	mV																
Selenium	mg/L	0.005 U			0.005 U			0.005 U		0.005			0.005 U		0.005 U		0.005 U
Silver	mg/L																
Sodium	mg/L	110		110	100		110	110		110		110	110		900		1200
Strontium	mg/L																
Sulfate	mg/L			260			240			250		240			11		8
Temperature, Field	deg C		17.3			18.3			16.4		13.7			15.8		13.5	
Thallium	mg/L	0.001 U			0.00024 J			0.001 U		0.001			0.001 U		0.001 U		0.001 U
Turbidity, Field	NTU		9.34			9.91			32.03		9.83			18.53		9.96	
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-13	2022-14	2022-14
	Date	2024-04-15	2024-04-15	2024-04-15	2024-07-02	2024-07-02	2024-07-02	2024-08-30	2024-08-30	2024-08-30	2024-09-26	2024-09-26	2024-10-16	2024-10-16	2024-10-16	2024-10-16	2023-09-20	2023-09-20
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		170	170		170	170		170	170		170		170	170	120		
Aluminum	mg/L																	
Antimony	mg/L			0.002 U			0.0011 J			0.002 U		0.002			0.002 U	0.002 U		
Arsenic	mg/L			0.002 J			0.0012 J			0.002 J		0.0015			0.002 J	0.0053		
Barium	mg/L			0.33			0.49			0.64		0.76			0.73	5.3		
Beryllium	mg/L			0.001 U			0.00064 J			0.001 U		0.001			0.001 U	0.001 U		
Bicarbonate Alkalinity as CaCO3	mg/L		170	170		170	170		170	170		170		170	170	120		
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L		0.27			0.27			0.32			0.32		0.31		0.29		
Bromide	mg/L																	
Cadmium	mg/L			0.001 U			0.00028 J			0.00013 J		0.00014			0.001 U	0.001 U		
Calcium	mg/L		20	18		25	27		27	36		40		44	41	280		
Carbonate Alkalinity as CaCO3	mg/L		5 U	5.5		5 U	5 U		5 U	5 U		5		5 U	5 U	5 U		
Chloride	mg/L		1800			2500			2500			3300		3100		10000		
Chromium	mg/L			0.005 U			0.005 U			0.005 U		0.005			0.005 U	0.004 J		
Cobalt	mg/L			0.00022 J			0.00048 J			0.00028 J		0.00024			0.00024 J	0.0026		
Conductivity, Field	uS/cm	6775			7927			8883			10467		10683					21765
Copper	mg/L																	
Dissolved Oxygen, Field	mg/L	0.23			0.49			0.44			1.17		0.77					1.39
Dissolved Solids, Total	mg/L		3200			3900			3500			5100		3600		14000		
Fluoride	mg/L		1.7	2		1.5	1.5		1.4	1.2		1		1.3	1.3	0.5 U		
Iron	mg/L																	
Lead	mg/L			0.001 U			0.001 U			0.001 U		0.001			0.001 U	0.0013		
Lithium	mg/L			0.029			0.036			0.036		0.047			0.048	0.14		
Magnesium	mg/L		5.4	4.7		6.8	7.5		7.3	9.5		11		11	10	78		
Manganese	mg/L																	
Mercury	mg/L			0.0002 U			0.0002 U			0.0002 U		0.0002			0.0002 U	0.0002 U		
Molybdenum	mg/L			0.083			0.055			0.052		0.042			0.046	0.017		
Nickel	mg/L																	
Oxidation-Reduction Potential, Field	mV	-116.7			-83.9			-27.2			-7		-11.1					-47.1
pH, Field	pH units	8.33			8.06			7.99			7.92		7.98					7.35
Potassium	mg/L		3	2.7		3	3.3		3.1	3.8		4.2		4.4	4.1	9.7		
Radium-226	pCi/L			0.46			0.497			0.592		0.832			0.868	6.99		
Radium-226/228	pCi/L			1.34			1.42			1.9		1.62			1.73 J	13.5		
Radium-228	pCi/L			0.879			0.923			1.31		0.787			0.86 J	6.46		
Redox Potential, Field	mV																	
Selenium	mg/L			0.005 U			0.005 U			0.005 U		0.005			0.005 U	0.005 U		
Silver	mg/L																	
Sodium	mg/L		1300	1300		1400	1500		1600	1700		2200		2100	1900	4900		
Strontium	mg/L																	
Sulfate	mg/L		6.2			6.4			6.9			6.5		10		28 J		
Temperature, Field	deg C	15.3			18.2			20.8			17.1		14.9					14.7
Thallium	mg/L			0.001 U			0.00036 J			0.001 U		0.001			0.001 U	0.001 U		
Turbidity, Field	NTU	4.83			9.3			3.84			4.86		3.41					52.39
Vanadium	mg/L																	
Zinc	mg/L																	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14	2022-14
	Date	2023-09-20	2023-12-14	2023-12-14	2023-12-14	2024-03-12	2024-03-12	2024-04-12	2024-04-12	2024-04-12	2024-07-02	2024-07-02	2024-07-02	2024-08-30	2024-08-30	2024-08-30	2024-09-18	
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	120		120 B	120 B		150		170	170		180	220		150	180		
Aluminum	mg/L																	
Antimony	mg/L	0.002 U			0.00059 J		0.002 U			0.00083 J			0.0014 J			0.0011 J		
Arsenic	mg/L	0.0055			0.0013 J		0.0015 J			0.0014 J			0.0026 J			0.0027 J		
Barium	mg/L	5.8			3.6		2.4			1.7			1.4			2.7		
Beryllium	mg/L	0.001 U			0.001 U		0.001 U			0.001 U			0.001 U			0.00033 J		
Bicarbonate Alkalinity as CaCO3	mg/L	120		120 B	120 B		150		170	170		180	220		150	180		
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.3		0.35			0.37		0.37			0.37			0.41			
Bromide	mg/L																	
Cadmium	mg/L	0.001 U			0.001 U		0.001 U			0.001 U			0.00025 J			0.00021 J		
Calcium	mg/L	300		270	280		290		290	300		270	280		290	290		
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U	5 U		5 U		5 U	5 U		5 U	5 U		5 U	5 U		
Chloride	mg/L	12000		9900			10000		9700			9600			10000			
Chromium	mg/L	0.0057			0.0013 J		0.0028 J			0.0041 J			0.025			0.026		
Cobalt	mg/L	0.0028			0.0028		0.0026			0.0026			0.0046			0.0045		
Conductivity, Field	uS/cm		27491			26892		26614			25837			28019			26115	
Copper	mg/L																	
Dissolved Oxygen, Field	mg/L		3.72			1.38		0.22			3.93			4.21			0.7	
Dissolved Solids, Total	mg/L	11000		11000			19000		15000			14000			15000			
Fluoride	mg/L	0.5 U		1 U	0.24 J		1 U		2.5 U	2.5 U		0.36 J	0.34 J		0.39 J	0.36 J		
Iron	mg/L																	
Lead	mg/L	0.0019			0.001 U		0.00053 J			0.00096 J			0.0036			0.0052		
Lithium	mg/L	0.14			0.13		0.14			0.14			0.14			0.11		
Magnesium	mg/L	82		80	81		79		85	82		80	81		84	80		
Manganese	mg/L																	
Mercury	mg/L	0.0002 U			0.0002 U		0.0002 U			0.0002 U			0.0002 U			0.0002 U		
Molybdenum	mg/L	0.017			0.018		0.019			0.019			0.018			0.02		
Nickel	mg/L																	
Oxidation-Reduction Potential, Field	mV		-145.7			-136.1		-138.3			83.5			78.1			-120.1	
pH, Field	pH units		7.4			7.39		7.3			7.08			7.26			7.16	
Potassium	mg/L	10		9.5	9.6		9.4		9.8 J	9.4		9.4	10		9.7	9.9		
Radium-226	pCi/L	8.4			5.57		3.23			2.09			1.77			3.31		
Radium-226/228	pCi/L	15.1			9.95		6.06 J			4.45			3.36			5.33		
Radium-228	pCi/L	6.68			4.38		2.83 J			2.36			1.58			2.02		
Redox Potential, Field	mV																	
Selenium	mg/L	0.005 U			0.005 U		0.00089 J			0.005 U			0.001 J			0.005 U		
Silver	mg/L																	
Sodium	mg/L	5200		5100	5100		5200		5300	5300		4800	5100		5200	5100		
Strontium	mg/L																	
Sulfate	mg/L	170 J		10 J			92		150			220			110			
Temperature, Field	deg C		11			13		12.2			17			25.7			17.3	
Thallium	mg/L	0.001 U			0.001 U		0.001 U			0.001 U			0.001 U			0.001 U		
Turbidity, Field	NTU		40.71			121.18		38.23			51.47			148.47			27.85	
Vanadium	mg/L																	
Zinc	mg/L																	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	2022-14	2022-14	2022-14	2022-14	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100
	Date	2024-09-18	2024-10-17	2024-10-17	2024-10-17	2016-08-23	2016-10-05	2016-12-02	2017-02-02	2017-03-29	2017-04-28	2017-06-12	2017-07-18	2017-07-18	2018-03-15	2018-09-24	2019-03-11
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N	FD
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	180		160	160			393	359						360	320	320
Aluminum	mg/L									1.8 J	0.044 J	3.8 B	1.8	1.7			
Antimony	mg/L	0.00059			0.00065 J	4E-05 J	6E-05 J	5E-05 J	5E-05 J	0.0012 J	0.002 U	0.002 U	0.002 U	0.002 U			
Arsenic	mg/L	0.0011			0.0019 J	0.00164	0.00207	0.00174	0.00156	0.002 J	0.0016 J	0.002 J	0.0019 J	0.002 J			
Barium	mg/L	2.2			3.3	0.602	0.69	0.468	0.521	0.64 B	0.65	0.65	0.66	0.66			
Beryllium	mg/L	0.001			0.001 U	1E-05 J	5.3E-05	1E-05 J	1E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U			
Bicarbonate Alkalinity as CaCO3	mg/L	180		160	160										360	320	
Bicarbonate Alkalinity as HCO3	mg/L																320
Boron	mg/L	0.39		0.38		0.432	0.429	0.39	0.415	0.45	0.47 B	0.48	0.49 JB	0.5 JB	0.45	0.45	0.48
Bromide	mg/L							7.81	8.8	8.9 J	8.9 J	10	8.7 J	8.8 J			
Cadmium	mg/L	0.00015			9.7E-05 J	4E-05 U	1E-05 J	4E-05 U	4E-05 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U			
Calcium	mg/L	320		290	280	20.3	22.2	14.1	16.8	17 B	16	20	17	17	14	18	17
Carbonate Alkalinity as CaCO3	mg/L	5		5	5 U										5 U	5 U	5 U
Chloride	mg/L	11000		10000		2180	2310	1770	199	2200	2200	2100	2200	2200	1800	2200	2100
Chromium	mg/L	0.013			0.019	0.0022	0.0049	0.00586	0.00582	0.0098	0.002 U	0.04	0.011	0.011			
Cobalt	mg/L	0.0031			0.0029	0.00062	0.00129	0.00235	0.00195	0.0012	0.00027 J	0.0099	0.0033	0.0031			
Conductivity, Field	uS/cm		27147			6544	7642	5904	7014						6107		
Copper	mg/L									0.0028 B	0.002 U	0.0051 B	0.002 U	0.002 U			
Dissolved Oxygen, Field	mg/L		0.94			1.22	0.51	0.91	1.18						0.2		
Dissolved Solids, Total	mg/L	18000		8500		3630	3980	3420	3600	3900 J	3700 J	3600	3400 J	3600 J	3300	3100	3100
Fluoride	mg/L	5		5	0.48 J	2.17	2.05	1.97	2.18	2.4	2.2	2.3	2.3	2.3	2.6	2.7	2.2
Iron	mg/L									1.7 JB	0.082 J	1	0.42	0.41			
Lead	mg/L	0.0035			0.0023	0.000244	0.00093	0.000135	0.000189	0.001 J	0.001 U	0.00046 J	0.001 U	0.001 U			
Lithium	mg/L	0.14			0.15	0.048	0.058	0.046	0.04	0.044	0.047	0.043	0.048	0.048			
Magnesium	mg/L	82		88	85			4.4	5.37	6.2 B	5.6	6.1	6.2	6.2	4.1	5.4	5.9
Manganese	mg/L									0.046	0.032	0.055	0.045	0.044			
Mercury	mg/L	0.0002			0.0002 U	5E-06 U	3E-06 J	5E-06 U	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U			
Molybdenum	mg/L	0.018			0.018	0.087	0.0889	0.125	0.106	0.11	0.11	0.11 J	0.097	0.098			
Nickel	mg/L									0.0065	0.002 U	0.038	0.0096	0.0087			
Oxidation-Reduction Potential, Field	mV		-108.3														
pH, Field	pH units		7.15			7.97	7.85	7.78	7.87	7.82	7.86	7.77		7.71	7.93	7.89	
Potassium	mg/L	10		9.5	9.7			3.87	4.57	3.1 B	2.6	2.7	2.7	2.7	2.1	2.6	2.6
Radium-226	pCi/L	2.85			1.65	0.637	0.909	0.863	0.544	0.538	0.565	0.736	0.691 J	0.758 J			
Radium-226/228	pCi/L	5.93			4.32	2.587	1.969	1.538	1.252	0.869	1.14	1.19	1.32	1.41			
Radium-228	pCi/L	3.08			2.67	1.95	1.06	0.675	0.708	0.332 U	0.58	0.458	0.63	0.648			
Redox Potential, Field	mV					-98.5	788	35.3	-138.6								
Selenium	mg/L	0.005			0.005 U	0.0001 J	0.0002 J	0.0003	0.0002 J	0.0007 J	0.005 U	0.005 U	0.005 U	0.005 U			
Silver	mg/L									0.001 U	0.001 U	0.00036 J	6.9E-05 J	6.3E-05 J			
Sodium	mg/L	5300		5800	5300			1270	1050	1400 JB	1500	1500	1500 JB	1500 JB	1200	1400	1500
Strontium	mg/L							1.18	1.4	1.7 B	1.9	1.7 B	1.7	1.7			
Sulfate	mg/L	150		82		11.4	8.4	12.2	9.9	15 J	13 J	15	14 J	14 J	22	16	17 J
Temperature, Field	deg C		14.7			19.02	18.6	14.9	14.1						15.2		
Thallium	mg/L	0.001			0.001 U	0.0001 U	3E-05 J	2E-05 J	4E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U			
Turbidity, Field	NTU		78.43			7	42.7	7.4	15.3	31.1	6.4	2.8		6	4.6	1.18	
Vanadium	mg/L												0.005 U	0.005 U			
Zinc	mg/L									0.02 U	0.02 U	0.02 U	0.02 U	0.02 U			

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100	93100
	Date	2019-03-11	2019-09-23	2020-03-19	2020-03-19	2020-09-22	2021-03-25	2021-09-28	2022-03-28	2022-09-16	2022-09-16	2023-03-31	2023-09-26	2023-09-26	2024-03-25	2024-03-25	2024-10-02
	Sample Type	N	N	FD	N	N	N	N	N	FD	N	N	N	N	N	N	FD
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	320	330	330	330	320	330	330	330	320	330	320		350		390	260
Aluminum	mg/L								0.033 J								
Antimony	mg/L								0.002 U			0.002 U		0.0011 J		0.0012 J	0.002
Arsenic	mg/L								0.0018 J			0.0015 J		0.0031 J		0.0025 J	0.0016
Barium	mg/L								0.51			0.52		0.54		0.37	0.54
Beryllium	mg/L								0.001 U			0.001 U		0.001 U		0.001 U	0.001
Bicarbonate Alkalinity as CaCO3	mg/L		330	330	330	320	320	330	330	320	330	320		350		390	260
Bicarbonate Alkalinity as HCO3	mg/L	320															
Boron	mg/L	0.49	0.46	0.47	0.47	0.48	0.44	0.46	0.51 J	0.44	0.45	0.45		0.47		0.47	0.45
Bromide	mg/L																
Cadmium	mg/L								0.0001 U			0.001 U		0.00026 J		0.001 U	0.001
Calcium	mg/L	17	18	17	18	19	18	17	15	16	17	15		17		11	17
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	4.6 J	5 U	5 U	3 J	5 U	5 U	5 U	5 U	5 U		5 U		5 U	5
Chloride	mg/L	2100	2000	2200	2200	2200	2100	2200	2000	2100 J	2200 J	2100		2000		1600	2200
Chromium	mg/L								0.015			0.0035 J		0.0054		0.025	0.0049
Cobalt	mg/L								0.0024			0.0061		0.0034		0.0027	0.0071
Conductivity, Field	uS/cm			6772	6772	6702	6959	6635	6548	7123	7123	6482	6186		6324		
Copper	mg/L								0.005 U								
Dissolved Oxygen, Field	mg/L								0.28	0.36	0.36	0.57	0.99		1.7		
Dissolved Solids, Total	mg/L	3100	2900	3200	3900	3100	3800	3300	2900 J	3900 J	460 J	3200		3200		2700	9900 J
Fluoride	mg/L	2.2	2.7	2.6	2.6	2.3	2.5	2.7	2.6	2.6 J	2.6 J	2.5		2.5		2.7	2.4
Iron	mg/L								0.099 J								
Lead	mg/L								0.0005 U			0.001 U		0.00078 J		0.00073 J	0.001
Lithium	mg/L								0.039			0.039		0.044		0.033	0.042
Magnesium	mg/L	6.1	6.3	5.3	5.6	5.8	5.7	5.3	5.5	5.1	5.2	5		5.4		3.5	5.5
Manganese	mg/L								0.028								
Mercury	mg/L								0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U	0.0002
Molybdenum	mg/L								0.12			0.11		0.13		0.15	0.11
Nickel	mg/L								0.012								
Oxidation-Reduction Potential, Field	mV								-2.2	-181.1	-181.1	7.95	-67		57.7		
pH, Field	pH units	8.06	8.04	8.02	8.02	7.94	7.87	7.97	8.03	7.81	7.81	7.95	7.91		8.01		
Potassium	mg/L	2.6	2.9	2.5	2.5	2.6	2.5	2.5	2.7	2.6	2.7	2.3		2.7		2.2	2.3
Radium-226	pCi/L								0.704	0.382	0.394	0.699		0.81		0.109 U	0.594
Radium-226/228	pCi/L								1.57	2.44 J	1.08	1.07		2.24		0.336 U	1.13
Radium-228	pCi/L								0.863	2.06 J	0.687 U	0.367 U		1.43		0.227 U	0.536 U
Redox Potential, Field	mV																
Selenium	mg/L								0.005 U			0.005 U		0.00094 J		0.005 U	0.00091
Silver	mg/L								0.001 U								
Sodium	mg/L	1500	1400	1400	1400	1400	1400	1400	1400	1300	1400	1300		1500		1100	1400
Strontium	mg/L								1.5								
Sulfate	mg/L	18 J	16	17	17	13	16	16	14	13 J	13 J	15		35		17	18
Temperature, Field	deg C			16	16	17	15	17	12	20	20	13.7	16.3		16.2		
Thallium	mg/L								0.001 U			0.001 U		0.0011		0.00057 J	0.001
Turbidity, Field	NTU		7	4	4	1.4	2	2.6	4	53.35	53.35	24.9	21.98		49.82		
Vanadium	mg/L																
Zinc	mg/L								0.02 U								

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	93100	93100	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108	93108
	Date	2024-10-02	2024-10-02	2016-08-24	2016-10-06	2016-12-02	2017-02-02	2017-03-23	2017-05-02	2017-06-12	2017-07-18	2018-03-15	2018-09-14	2021-09-20	2022-03-28	2022-09-19	2023-04-04
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		280			720	672					640	640	520	460	470	500
Aluminum	mg/L							2.5 J	0.13	0.041 JB	7.1				0.036 J		
Antimony	mg/L		0.002	0.0001	3E-05 J	0.00023	0.00016	0.002 U	0.002 U	0.002 U	0.002 U				0.002 U		0.002 U
Arsenic	mg/L		0.0016	0.00196	0.00153	0.0025	0.00166	0.0018 J	0.0013 J	0.0016 J	0.0029 J				0.0027		0.0028 J
Barium	mg/L		0.53	0.174	0.164	0.199	0.157	0.19 B	0.18	0.18	0.22				0.43		0.42
Beryllium	mg/L		0.001	4.1E-05	1E-05 J	0.000162	0.000107	0.001 U	0.001 U	0.001 U	0.00047 J				0.001 U		0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L		280									640	640	520	460	470	500
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.45	0.429	0.404	0.391	0.411	0.5	0.48	0.46	0.48 JB	0.45	0.47	0.44	0.48 J	0.45	0.45
Bromide	mg/L					2.42	2.16	2.4 J	2.7 J	2.8	2.6 J						
Cadmium	mg/L		0.001	7E-05	3E-05	0.0003	0.00019	0.001 U	0.001 U	0.0014	0.00024 J				0.0001 U		0.001 U
Calcium	mg/L		17	6.09	5.87	6.55	5.85	6 B	5.9	5.8	6.4	5.6	6.4	15	13	14	13
Carbonate Alkalinity as CaCO3	mg/L		5									5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L		2200	745	731	681	688	700	820	790	750	770	720	1500	1600	1600	1700
Chromium	mg/L		0.005	0.0086	0.0062	0.0263	0.025	0.02	0.004	0.002 U	0.067				0.005 U		0.005 U
Cobalt	mg/L		0.007	0.00113	0.00039	0.00393	0.00262	0.002	0.00037 J	0.00025 J	0.0059				0.0005 U		0.001 U
Conductivity, Field	uS/cm	7196		3490	3589	3580	3545					3606		5299	5821	6189	
Copper	mg/L							0.008 B	0.002 U	0.002 U	0.021				0.005 U		
Dissolved Oxygen, Field	mg/L	0.45		1.67	0.81	1.01	1.42					0.64			0.16	0.4	
Dissolved Solids, Total	mg/L		3600 J	1940	1900	1950	1900	1800 J	1900 J	2000	1800 J	2100	1700	2800	2200 J	3200	2900
Fluoride	mg/L		2.4	4.59	4.46	4.15	4.57	5.4	5.1	5.3	5.5	4.6	4.9	3.2	3.1	3.1 J	3.3
Iron	mg/L							2.7 JB	0.25	0.12	8.3				0.58		
Lead	mg/L		0.001	0.00206	0.000516	0.00639	0.00385	0.0026 J	0.0007 J	0.001 U	0.0074				0.0005 U		0.001 U
Lithium	mg/L		0.042	0.027	0.028	0.033	0.024	0.025	0.025	0.029	0.033				0.038		0.036
Magnesium	mg/L		5.4			2.33	2.18	2.2 B	2	1.8	2.9	1.7	1.9 J	3.8	4.6	4.3	3.8
Manganese	mg/L							0.051	0.027	0.031	0.092				0.18		
Mercury	mg/L		0.0002	5E-06	1.5E-05	1E-05	9E-06	0.0002 U	0.0002 U	0.0002 U	0.0002 U				0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L		0.11	0.254	0.267	0.237	0.23	0.25	0.24	0.23 J	0.24				0.099		0.11
Nickel	mg/L							0.014	0.0033	0.0015 J	0.05				0.0025 J		
Oxidation-Reduction Potential, Field	mV	-121.7													-155.9	-188.4	
pH, Field	pH units	7.96		7.59	7.87	7.96	7.9	8.07	7.99	7.87	7.84	7.97	7.7	7.48	7.43	7.49	
Potassium	mg/L		2.2			2.59	2.53	1.8 B	1.4	1.3	2.7	1.3	1.4 J	1.9	2.2	1.9	1.8
Radium-226	pCi/L		0.589	0.74	0.639	1.02	0.322	0.355	0.289	0.351	0.527				0.706	0.562	0.644
Radium-226/228	pCi/L		1.59	2.68	2.059	1.229	0.502	0.471	0.919	0.704	2.09				1.74	1.8 J	1.68
Radium-228	pCi/L		1	1.94	1.42	0.209	0.18	0.116 U	0.63	0.353	1.56				1.04	1.24 J	1.03
Redox Potential, Field	mV			-29.9	-145.3	-112.7	-121.3										
Selenium	mg/L		0.005	0.0002 J	6E-05 J	0.0004	0.0002	0.005 U	0.005 U	0.005 U	0.005 U				0.005 U		0.005 U
Silver	mg/L							0.001 U	0.001 U	0.001 U	6.2E-05 J				0.00052 J		
Sodium	mg/L		1300			827	595	790 JB	790 B	790	760 JB	810	820	1100	1200	1300	1200
Strontium	mg/L					0.434	0.41	0.46 B	0.5 B	0.45 B	0.46				1.2		
Sulfate	mg/L		18	73.1	66.1	68.1	72.3	83 J	82	84	90	85	85	39	22	27	16
Temperature, Field	deg C	17.9		18.33	15	12.9	12.9					14.8		15	12	16	
Thallium	mg/L		0.001	0.000125	4E-05 J	0.000159	0.000126	0.001 U	0.001 U	0.001 U	0.00021 J				0.001 U		0.001 U
Turbidity, Field	NTU	10.23		28.9	9.7	18.3	15.9	50.1	16.4	8.6	287.1	4.8	10.1	7.2	3.3	0.55	
Vanadium	mg/L							0.0045 J			0.013						
Zinc	mg/L							0.019 J	0.02 U	0.02 U	0.036				0.02 U		

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

		Location	93108	93108	93108	93108	93108	93108	93108	94136	94136	94136	94136	94136	94136	94136	94136	94136
		Date	2023-04-04	2023-09-25	2023-09-25	2024-03-15	2024-03-15	2024-09-19	2024-09-19	2016-08-24	2016-10-06	2016-12-01	2017-02-01	2017-03-23	2017-04-28	2017-06-09	2017-07-17	2017-07-17
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	500		500		450		450			331	323						
Aluminum	mg/L												0.057	0.037 J	0.69	0.05 U	0.05 U	
Antimony	mg/L	0.002 U		0.002 U		0.002 U		0.002	2E-05 J	3E-05 J	2E-05	1E-05 J	0.0017 J	0.002 U	0.01 U	0.002 U	0.002 U	
Arsenic	mg/L	0.0031 J		0.0035 J		0.0016 J		0.0044	0.00037	0.00048	0.00042	0.00039	0.0012 J	0.005 U	0.025 U	0.005 U	0.005 U	
Barium	mg/L	0.4		0.47		0.44		0.53	0.0865	0.0894	0.102	0.0877	0.11 B	0.1	0.099 B	0.11	0.1	
Beryllium	mg/L	0.001 U		0.001 U		0.001 U		0.001	2E-05 U	1E-05 J	1E-05	5E-06 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L	500		500		450		450										
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L	0.43		0.41		0.39		0.44	0.405	0.395	0.349	0.362	0.46	0.43 B	0.54	0.42 JB	0.44 JB	
Bromide	mg/L										4.07	3.25	3.7 J	3.7 J	3.8 J	4.2 J	4.2 J	
Cadmium	mg/L	0.001 U		0.001 U		0.001 U		0.00013	6E-06 J	6E-06 J	6E-06	5E-06 J	0.001 U	0.001 U	0.005 U	0.001 U	0.001 U	
Calcium	mg/L	13		15		15		19	23.2	22	19.2	17.7	19 B	17	16	17	17	
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U		5 U		5										
Chloride	mg/L	1600		1800		1800		2000	888	927	887	882	910	900	940	950	960	
Chromium	mg/L	0.005 U		0.005 U		0.0012 J		0.005	0.0012	0.002	0.0013	0.00124	0.0019 J	0.002 U	0.005 J	0.0032	0.001 J	
Cobalt	mg/L	0.001 U		0.001 U		0.00019 J		9.4E-05	0.000107	0.00029	0.00015	0.000122	0.0004 J	0.00079 J	0.0014 J	0.0007 J	0.00065 J	
Conductivity, Field	uS/cm	5266	5270		6178		5539		3541	3581	3578	3558						
Copper	mg/L												0.00085 JB	0.002 U	0.01 U	0.002 U	0.002 U	
Dissolved Oxygen, Field	mg/L	0.42	0.96		1.57		0.55		1.08	0.58	0.77	1.7						
Dissolved Solids, Total	mg/L	3000		3200		2900		3400	1850	1820	1840	1750	1800 J	2000 J	2000	1800 J	1900 J	
Fluoride	mg/L	3.3		3.2		3.2		2.7	0.96	0.94	1.03	0.9	1.2	1.2	1.4	1.1	1.1	
Iron	mg/L												0.067 JB	0.1 U	0.6	0.1 U	0.1 U	
Lead	mg/L	0.001 U		0.001 U		0.001 U		0.001	5.3E-05	0.000164	0.000142	7.9E-05	0.00031 J	0.001 U	0.001 U	0.001 U	0.001 U	
Lithium	mg/L	0.036		0.042		0.043		0.042	0.028	0.033	0.035	0.029	0.026	0.028	0.025	0.03	0.029	
Magnesium	mg/L	3.7		4.6		4.3		5.3			4.46	4.13	4.5 B	3.9	4.1 J	4.3	4.3	
Manganese	mg/L												0.058	0.03	0.079	0.098	0.089	
Mercury	mg/L	0.0002 U		0.0002 U		0.0002 U		0.0002	5E-06 U	5E-06 U	2E-06	5E-06 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Molybdenum	mg/L	0.1		0.096		0.077		0.088	0.0135	0.015	0.0137	0.0133	0.02	0.015	0.017 J	0.015	0.015	
Nickel	mg/L												0.0015 J	0.004	0.01 U	0.002 U	0.002 U	
Oxidation-Reduction Potential, Field	mV	-138	-185.8		-182.5		-177.1											
pH, Field	pH units	7.35	7.53		7.43		7.36		7.54	7.69	7.72	7.74	7.81	7.76	7.8		7.89	
Potassium	mg/L	1.8		2		1.9		2.4			2.38	4.27	2.1 B	2	2.1 J	2	2	
Radium-226	pCi/L	0.527		0.615		0.789		0.559	0.312	0.984	0.122	0.304	0.211	0.338	0.191	0.123	0.22	
Radium-226/228	pCi/L	1.14		1.78 J		1.96		1.17	2.592	2.264	1.642	0.665	0.398	0.584	0.528	0.521	0.765	
Radium-228	pCi/L	0.61		1.16 J		1.17		0.614	2.28	1.28	1.52	0.361	0.188 U	0.246 U	0.337 U	0.398	0.545	
Redox Potential, Field	mV								170.7	11.5	-50.1	26.4						
Selenium	mg/L	0.005 U		0.005 U		0.005 U		0.0013	4E-05 J	8E-05 J	7E-05	5E-05 J	0.0012 J	0.005 U	0.025 U	0.005 U	0.005 U	
Silver	mg/L												0.001 U	0.001 U	0.005 U	0.001 U	0.001 U	
Sodium	mg/L	1200		1300		1200		1400			557	496	750 JB	690	750	720 JB	720 JB	
Strontium	mg/L										0.686	0.616	0.74 B	0.69	0.65 B	0.73	0.73	
Sulfate	mg/L	16		22		13		17	91.6	75.1	63.8	52.7	78 J	83	99	60	61	
Temperature, Field	deg C	13.8	14.6		14.1		19.4		17.44	15.8	15.3	14						
Thallium	mg/L	0.001 U		0.00053 J		0.00038 J		0.001	1E-05 J	9.9E-05	1E-05	5E-05 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Turbidity, Field	NTU	2.87	5.28		7.02		1.46		4	8.4	9.2	21.1	6.4	195.4	8.5		5.9	
Vanadium	mg/L												0.00054 J			0.005 U	0.005 U	
Zinc	mg/L												0.02 U	0.02 U	0.1 U	0.02 U	0.02 U	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136	94136
	Date	2018-03-08	2018-03-08	2018-09-12	2019-03-07	2019-09-17	2019-09-17	2020-03-25	2020-09-25	2021-03-22	2021-09-19	2022-03-23	2022-09-21	2023-03-30	2023-09-22	2023-09-22	2023-09-22
	Sample Type	FD	N	N	N	FD	N	N	N	N	N	N	N	N	FD	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L			310	310	330	340	370	340	360	300	200 J	310	320	340		340
Aluminum	mg/L											0.21					
Antimony	mg/L											0.002 U		0.002 U	0.002 U		0.002 U
Arsenic	mg/L											0.00075 J		0.00094 J	0.00079 J		0.005 U
Barium	mg/L											0.1		0.11	0.11		0.11
Beryllium	mg/L											0.001 U		0.001 U	0.001 U		0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L			310		330	330	360	340	350	300	200 J	310	320	340		340
Bicarbonate Alkalinity as HCO3	mg/L				310												
Boron	mg/L	0.49	0.54		0.33	0.41	0.44	0.48	0.41	0.46	0.35	0.45 J	0.35	0.35	0.3		0.29
Bromide	mg/L																
Cadmium	mg/L											0.0001 U		0.001 U	0.001 U		0.001 U
Calcium	mg/L	29	34	17	15	14	14	13	14	14	14	15	13	13	14		13
Carbonate Alkalinity as CaCO3	mg/L			5 U	5 U	5.9	6	6.1	5.1	7.7	5 U	5 U	5 U	5 U	5 U		5 U
Chloride	mg/L	940	950	970	900	870	870	960	830	830	930	1100	920 J	1000	1000		940
Chromium	mg/L											0.005 U		0.0061	0.0085		0.0071
Cobalt	mg/L											0.00037 J		0.0012	0.00066 J		0.00061 J
Conductivity, Field	uS/cm		3896					3409	3397	3396	3381	3977	3521	3577		3418	
Copper	mg/L											0.005 U					
Dissolved Oxygen, Field	mg/L		4.05									0.13	0.36	0.46		1.56	
Dissolved Solids, Total	mg/L	1900	1900		1700	2000	1900	1700	1400	1600	1800	1600	1100 J	1800	1700		1700
Fluoride	mg/L	1.1	1.1	1.2	1.1	1.3	1.4	1.4	1.4	1.4	1.3	1.3	1.3 U	1.2	1.2		1.4
Iron	mg/L											0.22 J					
Lead	mg/L											0.0005 U		0.00073 J	0.001 U		0.001 U
Lithium	mg/L											0.029		0.027	0.029		0.026
Magnesium	mg/L	6.5	7.4	3.9	3.8	3.5	3.5	3.5	3.6	3.5	3.5	3.9	3.5	3.4	3.7		3.6
Manganese	mg/L											0.11					
Mercury	mg/L											0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U
Molybdenum	mg/L											0.014 J		0.014	0.014		0.013
Nickel	mg/L											0.005 U					
Oxidation-Reduction Potential, Field	mV											-57.8	-156.4	69		12.1	
pH, Field	pH units		7.74	7.87	8		8.02	8.06	8.07	7.95	7.87	7.88	7.92	7.93		7.91	
Potassium	mg/L	2.4	2.6	2.1	1.8	1.9	1.9	1.9	1.9	1.9	1.7	2.2	1.8	1.8	1.9		1.9
Radium-226	pCi/L											0.434	0.289	0.623	0.592		0.501
Radium-226/228	pCi/L											0.845	0.352 U	0.755 U	2.36		1.72
Radium-228	pCi/L											0.411	0.0631 U	0.131 U	1.76		1.22
Redox Potential, Field	mV																
Selenium	mg/L											0.0012 J		0.005 U	0.005 U		0.005 U
Silver	mg/L											0.001 U					
Sodium	mg/L	790	800	760	710	750	760	690	690	710	650	740	720	670	700		690
Strontium	mg/L											0.66					
Sulfate	mg/L	150	180	75	60	81	85	73	67	65	59	55	52	55	50		58
Temperature, Field	deg C		14.7					15	16	16	17	16	18.1	15.5		17.5	
Thallium	mg/L											0.001 U		0.001 U	0.001 U		0.001 U
Turbidity, Field	NTU		1.1	2.94			12	7	2.9	2	5.6	4	14.87	41.74		38.45	
Vanadium	mg/L																
Zinc	mg/L											0.02 U					

Notes:
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N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
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B: Compound was found in the blank and sample.
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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	94136	94136	94136	94136	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137
	Date	2024-03-15	2024-03-15	2024-09-27	2024-09-27	2016-08-24	2016-10-06	2016-12-01	2017-02-01	2017-03-23	2017-04-28	2017-06-09	2017-07-17	2018-03-08	2018-09-12	2019-03-11	2019-09-17
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L		330		350			341	360						330	330	340
Aluminum	mg/L									0.039 J	0.05 U	0.27	0.05 U				
Antimony	mg/L		0.002 U		0.0011	5E-05	3E-05 J	3E-05	4E-05 J	0.00038 J	0.002 U	0.002 U	0.002 U				
Arsenic	mg/L		0.005 U		0.0017	0.00179	0.00244	0.00211	0.00138	0.0026 J	0.0012 J	0.0036 J	0.0028 J				
Barium	mg/L		0.1		0.12	0.0524	0.0578	0.0553	0.049	0.068 B	0.056	0.065 B	0.059				
Beryllium	mg/L		0.001 U		0.001	2E-05 U	2E-05 U	5E-06	2E-05 U	0.001 U	0.001 U	0.001 U	0.001 U				
Bicarbonate Alkalinity as CaCO3	mg/L		330		350										330		340
Bicarbonate Alkalinity as HCO3	mg/L															330	
Boron	mg/L		0.31		0.41	0.021	0.017	0.022	0.037	0.04 J	0.028 JB	0.039 J	0.072 JB	0.035 J^		0.037 J	0.1 U
Bromide	mg/L							0.106	0.085	0.11 J	2.5 U	0.11 J	0.09 J				
Cadmium	mg/L		0.001 U		8E-05	6E-05	2E-05	7E-05	5E-05	0.001 U	0.001 U	0.001 U	0.001 U				
Calcium	mg/L		13		14	147	163	154	148	160 B	160	160	160	150	160	150	150
Carbonate Alkalinity as CaCO3	mg/L		5 U		5										5 U	5 U	5 U
Chloride	mg/L		910		910	27.5	27.7	27.8	27.5	29	29	29	28	28	28	28	26
Chromium	mg/L		0.0035 J		0.011	0.0035	0.0055	0.0014	0.00169	0.0031	0.002 U	0.0049	0.0038				
Cobalt	mg/L		0.00048 J		0.00072	0.0922	0.495	0.0503	0.056	0.12	0.031	0.097	0.17				
Conductivity, Field	uS/cm	3590		3629		1252	1305	1283	1302					1281			
Copper	mg/L									0.00065 JB	0.002 U	0.0045	0.002 U				
Dissolved Oxygen, Field	mg/L	1.82		0.67		1.08	0.73	0.83	1.29					1.61			
Dissolved Solids, Total	mg/L		1700		1800	958	856	867	883	890 J	920 J	880	920 J	890		870	890
Fluoride	mg/L		1.2		1.5	0.11	0.1 J	0.12	0.11	0.14	0.12 J	0.13 J	0.12	0.12 J	0.11	0.25 U	0.11
Iron	mg/L									0.67 JB	0.19	1.6	0.83				
Lead	mg/L		0.001 U		0.00062	0.0002	0.000152	0.000156	7E-05	0.00019 J	0.001 U	0.00053 J	0.001 U				
Lithium	mg/L		0.029		0.028	0.011	0.017	0.015	0.007	0.0078 J	0.0096	0.0088	0.0088				
Magnesium	mg/L		3.4		3.8			47.9	47.4	51 B	47	50	48	51	49	51	48
Manganese	mg/L									0.088	0.06	0.13	0.14				
Mercury	mg/L		0.0002 U		0.0002	8E-06	3E-06 J	5E-06	2E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U				
Molybdenum	mg/L		0.014		0.017	0.00275	0.00353	0.00287	0.00633	0.0034 J	0.0027 J	0.0031 J	0.0026 J				
Nickel	mg/L									0.0028	0.0019 J	0.0039	0.003				
Oxidation-Reduction Potential, Field	mV	-58.1		-112.2													
pH, Field	pH units	7.93		8.02		7.11	6.93	6.98	7.02	7.03	6.96	7.05	6.96	6.98	7.01	7.13	7.13
Potassium	mg/L		1.8		2.2			1.82	2.18	1.7 B	1.7	1.8	1.7	1.7	1.9	2	1.8
Radium-226	pCi/L		0.556		0.349	0.171	1.71	0.29	0.257	0.239	0.111	0.0957	0.0922				
Radium-226/228	pCi/L		1.35		1.03	2.681	2.373	1.268	3.127	0.261 U	0.201 U	0.331 U	0.3 U				
Radium-228	pCi/L		0.792		0.681	2.51	0.663	0.978	2.87	0.0221 U	0.0903 U	0.235 U	0.208 U				
Redox Potential, Field	mV					-32.2	-21.4	-55.4	-74.7								
Selenium	mg/L		0.005 U		0.005	5E-05 J	9E-05 J	5E-05	0.0001 U	0.00056 J	0.005 U	0.005 U	0.005 U				
Silver	mg/L									6E-05 J	0.001 U	6.8E-05 J	0.001 U				
Sodium	mg/L		690		790			70.7	65	68 JB	64 B	68	68 JB	67	64	67	65
Strontium	mg/L							0.298	0.276	0.32 B	0.29	0.28 B	0.29				
Sulfate	mg/L		51		59	348	330	349	332	360 J	360	360	370	360	370	370	350
Temperature, Field	deg C	15.4		18.3		19.28	17	15.7	14					14.7			
Thallium	mg/L		0.001 U		0.001	4E-05 J	4E-05 J	4E-05	0.000166	0.001 U	0.001 U	0.001 U	0.001 U				
Turbidity, Field	NTU	7.4		35.21		5.9	9.7	7.8	7.1	8	13.9	4.5	6.7	2.3	4.31		3
Vanadium	mg/L									0.00076 J			0.005 U				
Zinc	mg/L									0.02 U	0.02 U	0.02 U	0.02 U				

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94137	94139	94139
	Date	2020-03-25	2020-09-25	2021-03-22	2021-09-19	2022-03-23	2022-09-21	2023-03-30	2023-09-22	2023-09-22	2024-03-15	2024-03-15	2024-03-15	2024-09-27	2024-09-27	2016-08-23	2016-10-05
	Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	350	330	340	310	210 J	370	350		350	350		360		350		
Aluminum	mg/L					0.38 J											
Antimony	mg/L					0.002 U		0.002 U		0.002 U	0.002 U		0.002 U		0.00085	4E-05 J	3E-05 J
Arsenic	mg/L					0.024		0.0063		0.0049 J	0.0034 J		0.003 J		0.0026	0.00328	0.00322
Barium	mg/L					0.058		0.048		0.053	0.045		0.042		0.05	0.0893	0.0852
Beryllium	mg/L					0.001 U		0.001 U		0.001 U	0.001 U		0.001 U		0.001	6.5E-05	2.7E-05
Bicarbonate Alkalinity as CaCO3	mg/L	350	330	340	310	210 J	370	350		350	350		360		350		
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.1 U	0.024 J	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U		0.1 U	0.1 U		0.1 U		0.1	0.498	0.507
Bromide	mg/L																
Cadmium	mg/L					0.00029		0.001 U		0.001 U	0.001 U		0.001 U		0.0002	1E-05 J	1E-05 J
Calcium	mg/L	150	150	160	140	170	140	150		150	150		140		150	6.7	5.6
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U	5 U		5 U		5		
Chloride	mg/L	27	28	26	28	27	27 U	26		27	28		27		28	487	503
Chromium	mg/L					0.0097 J		0.005 U		0.0078	0.013		0.015		0.0066	0.0008	0.0017
Cobalt	mg/L					0.51		0.077		0.21	0.066		0.078		0.37	0.000397	0.00031
Conductivity, Field	uS/cm	1221	1213	1212	1210	1251	1273	1307	1249			1283		1283		2454	2630
Copper	mg/L					0.005 U											
Dissolved Oxygen, Field	mg/L					0.31	0.26	0.37	3.2			1.49		0.72		1.05	0.41
Dissolved Solids, Total	mg/L	870	830	880	900	870	620	840		870	820		830		610	1420	1460
Fluoride	mg/L	0.12	0.12	0.11	0.13	0.13	0.11 U	0.072		0.11	0.092		0.093		0.11	4.22	4.08
Iron	mg/L					6.4											
Lead	mg/L					0.0026 J		0.001 U		0.001 U	0.001 U		0.001 U		0.001	0.000963	0.00125
Lithium	mg/L					0.0089 J		0.0096		0.01 J	0.011		0.0096		0.01	0.02	0.026
Magnesium	mg/L	47	49	48	46	48	48	47		50	47		44		52		
Manganese	mg/L					0.82											
Mercury	mg/L					0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U		0.0002 U		0.0002	5E-06 U	5E-06 U
Molybdenum	mg/L					0.002 U		0.005 U		0.0021 J	0.0021 J		0.0022 J		0.0017	0.2	0.231
Nickel	mg/L					0.01											
Oxidation-Reduction Potential, Field	mV					-165.3	-282.3	-270.9	-156.7			-149.7		-154.5			
pH, Field	pH units	7.14	7.2	7.02	7.03	7.05	7.14	7.14	6.96			7.06		7.16		8.19	8.18
Potassium	mg/L	1.6	1.7	1.7	1.6	1.8	1.6	1.7		1.8	1.7		1.6		1.9		
Radium-226	pCi/L					0.461	0.215	0.0396 U		0.0754 U	0.21 J		-0.0337 UJ		0.0461 U	1.34	0.464
Radium-226/228	pCi/L					1.1	0.427 U	0.782 U		1	2.16 J		0.709 UJ		0.895	16.81	1.634
Radium-228	pCi/L					0.644	0.212 U	0.743 U		0.926	1.95		0.743 U		0.849	15.47	1.17
Redox Potential, Field	mV															-51.8	-191.2
Selenium	mg/L					0.0015 J		0.005 U		0.005 U	0.005 U		0.005 U		0.005	0.0002	0.0001
Silver	mg/L					0.00065 J											
Sodium	mg/L	61	64	64	59	68	65 J	63		65	61		58		67		
Strontium	mg/L					0.29											
Sulfate	mg/L	390	330	330	340	340	320	330		360	340		330		340	56.1	49
Temperature, Field	deg C	14	17	17	17	18	19.2	15.6	18.8			15.8		19.7		20.42	17.9
Thallium	mg/L					0.00042 J		0.001 U		0.001 U	0.001 U		0.001 U		0.001	5E-05 U	5E-05 U
Turbidity, Field	NTU	2.5	1.3	8.1	1.6	63.4	11.11	4.34	21.37			13.78		8.99		69.7	8.8
Vanadium	mg/L																
Zinc	mg/L					0.02 UJ											

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

		Location	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139	94139
		Date	2016-12-02	2017-02-02	2017-03-29	2017-04-28	2017-06-12	2017-06-12	2017-07-18	2018-03-15	2018-09-24	2019-03-11	2019-09-23	2020-03-19	2020-09-22	2021-03-25	2021-09-28	2022-03-28
		Sample Type	N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		563	555						510	500	500	490	520	500	500	500	490
Aluminum	mg/L				1.1 J	0.092	3.8 B	5.1 B	32									3.4
Antimony	mg/L		6E-05	3E-05 J	0.0017 J	0.002 U	0.002 U	0.002 U	0.002 U									0.002 U
Arsenic	mg/L		0.00438	0.00317	0.0031 J	0.0033 J	0.0047 J	0.0051	0.008									0.0036
Barium	mg/L		0.0969	0.081	0.097 B	0.092	0.11	0.12	0.29									0.13
Beryllium	mg/L		7.1E-05	2E-05 J	0.001 U	0.001 U	0.001 U	0.00038 J	0.0015									0.00033 J
Bicarbonate Alkalinity as CaCO3	mg/L									490	490		470	490	470	480	480	470
Bicarbonate Alkalinity as HCO3	mg/L											480						
Boron	mg/L		0.458	0.456	0.52	0.54 B	0.53	0.54	0.54 JB	0.51	0.5	0.54	0.51	0.51	0.51	0.55	0.53	0.52 J
Bromide	mg/L		1.75	1.57	1.9 J	1.8 J	1.8 J	1.8 J	1.8 J									
Cadmium	mg/L		2E-05 U	6E-06 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00034 J									7.9E-05 J
Calcium	mg/L		7.99	6.66	5.5 B	7.1	9.6	10	13	7.1	6.8	6.7	7.5	7.4	8.1	6.9	6.6	6.6
Carbonate Alkalinity as CaCO3	mg/L									15	13	17	19	27	24	27	22	18
Chloride	mg/L		450	500	510	510	480	480	520	500	560	500	480	560	560	480	520	490
Chromium	mg/L		0.00236	0.000647	0.0017 J	0.002 U	0.0029	0.0052	0.014									0.0019 J
Cobalt	mg/L		0.000507	0.000159	0.00037 J	0.001 U	0.00062 J	0.00082 J	0.0035									0.00093
Conductivity, Field	uS/cm		2608	2726						2550				2467	2493	2486	2473	2565
Copper	mg/L				0.0014 JB	0.002 U	0.007 B	0.0063 B	0.019									0.0057 J
Dissolved Oxygen, Field	mg/L		0.79	1.27						1.29								0.57
Dissolved Solids, Total	mg/L		1390	1360	1500 J	1500 J	1400	1400	1400 J	1400	1400	1300	1300	1300	1400	1400	1500	1300 J
Fluoride	mg/L		4.05	4.11	4.6	4.7	5	5	5.1	4.4	4.6	4.4	4.7	4.6	4.6	4.5	4.8	4.5
Iron	mg/L				0.62 JB	0.048 J	1.7	2.4	16									1.6
Lead	mg/L		0.000921	0.000319	0.001 J	0.001 U	0.0025	0.004	0.029									0.0039 J
Lithium	mg/L		0.026	0.014	0.019	0.019	0.018	0.019	0.024									0.019
Magnesium	mg/L		2.44	2	1.9 B	2.1	3.2	3.4	7.5	2.3	2.1	2.3	2.9	2.3	2.9	2	1.9	2.4
Manganese	mg/L				0.026	0.017	0.023	0.033	0.28									0.042
Mercury	mg/L		1E-05	3E-06 J	0.0002 U	0.0002 U	0.0002 U	0.0002 UJ	0.0002 U									0.0002 U
Molybdenum	mg/L		0.214	0.195	0.22	0.21	0.19 J	0.2 J	0.19									0.16
Nickel	mg/L				0.00089 J	0.002 U	0.0025	0.0027	0.013									0.0039 J
Oxidation-Reduction Potential, Field	mV																	-11.5
pH, Field	pH units		8.17	8.13	8.12	8.14		8.01	7.92	8.19	8.17	8.37	8.36	8.35	8.22	8.22	8.28	8.34
Potassium	mg/L		2.6	1.97	1.4 B	1.4	1.5	1.6	2.4	1.4	1.4	1.4	1.6	1.3	1.5	1.4	1.4	1.5
Radium-226	pCi/L		0.936	0.454	0.387	0.547	0.559	0.61	0.886 J									0.874
Radium-226/228	pCi/L		1.606	1.196	0.797	0.907	1.12	0.971	2.21									1.57
Radium-228	pCi/L		0.67	0.742	0.41 U	0.36 U	0.565	0.361 U	1.32									0.693 U
Redox Potential, Field	mV		-43.3	-102.6														
Selenium	mg/L		0.0002	3E-05 J	0.00089 J	0.005 U	0.005 U	0.00091 J	0.0029 J									0.005 U
Silver	mg/L				0.001 U	0.001 U	0.001 U	0.001 U	0.00019 J									0.001 U
Sodium	mg/L		425	451	580 JB	570	530	550	560 JB	550	590	560	510	550	520	550	570	560
Strontium	mg/L		0.453	0.395	0.4 B	0.46	0.48 B	0.51 B	0.75									0.48
Sulfate	mg/L		52.8	51	62 J	62	70	69	66	65	74	66	60	62	59	59	61	57
Temperature, Field	deg C		14.8	14.3						15.7				16	17	15	18	14
Thallium	mg/L		2E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U									0.001 U
Turbidity, Field	NTU		169.8	8.7	5	5.9		90.8	69.3	22	10.8		34	7.4	309	9.8	4.9	50.3
Vanadium	mg/L								0.0079									
Zinc	mg/L				0.02 U	0.02 U	0.02 U	0.02 U	0.081									0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	94139	94139	94139	94139	94139	94139	94139	94139	96152	96152	96152	96152	96152	96152	96152	96152
	Date	2022-09-16	2023-03-31	2023-09-26	2023-09-26	2024-03-18	2024-03-18	2024-09-20	2024-09-20	2019-03-28	2019-09-22	2020-03-26	2020-09-17	2021-03-10	2021-09-29	2022-03-31	2022-05-10
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	490	490		510		530		500	450	450	470	550	560	590	600	470
Aluminum	mg/L															2.7	
Antimony	mg/L		0.002 U		0.0006 J		0.002 U		0.002							0.002 U	0.002 U
Arsenic	mg/L		0.0042 J		0.0079		0.0037 J		0.0049							0.024	0.0022 J
Barium	mg/L		0.1		0.16		0.1		0.11							0.49	0.51
Beryllium	mg/L		0.001 U		0.001 U		0.001 U		0.001							0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	460	460		490		500		480	450	450	470	550	560	590	600	470
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.52	0.51		0.52		0.45		0.49	0.43	0.41	0.43	0.43	0.45	0.48	1.2 U	0.45
Bromide	mg/L																
Cadmium	mg/L		0.001 U		0.0002 J		0.001 U		0.00013							0.0001 U	0.001 U
Calcium	mg/L	7.3	7.1		13		8.9		8.6	85	61	64	50	43	41	54	49
Carbonate Alkalinity as CaCO3	mg/L	26	27		21		23		24	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	520 J	490		510		480		500	4900	4300	4800	3400	3200	3100	3000	3500
Chromium	mg/L		0.0044 J		0.0086		0.0019 J		0.014							0.0093	0.005 U
Cobalt	mg/L		0.00082 J		0.0031		0.0007 J		0.00095							0.008	0.002
Conductivity, Field	uS/cm	2613	2624	2543		2635		2551				12690	10609	10275	4382	10560	9762
Copper	mg/L															0.012 J	
Dissolved Oxygen, Field	mg/L	0.37	0.53	0.8		1.98		0.49								1.24	0.36
Dissolved Solids, Total	mg/L	950	1300		1300		1300		1400	6400	6200	6600	4500	5100	5000	4900	5000
Fluoride	mg/L	4.9 J	4.6		4.7		4.7		4.9	0.84	0.91	0.86	0.97	0.72	1	0.85	0.91
Iron	mg/L															7.3	
Lead	mg/L		0.0022		0.02		0.0036		0.0013							0.0059 J	0.001 U
Lithium	mg/L		0.018		0.021		0.019		0.018							0.098	0.069
Magnesium	mg/L	2.4	2.6		4.1		2.8		2.6	28	24	23	17	16	14	19	16
Manganese	mg/L															0.53	
Mercury	mg/L	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002							0.0002 U	0.00015 J
Molybdenum	mg/L		0.19		0.19		0.18		0.19							0.002 U	0.0032 J
Nickel	mg/L															0.017	
Oxidation-Reduction Potential, Field	mV	-66.7	41.8	48.9		123.2		-45.8								187.5	-110.9
pH, Field	pH units	8.2	8.26	8.24		8.23		8.44		7.71	7.55	7.75	7.68	7.56	7.39	7.41	7.16
Potassium	mg/L	1.6	1.5		2.4		1.4		2	14	11	11	9.3	8.9	8.4	9 J	8.3
Radium-226	pCi/L	0.464	0.532		0.551 U		0.409		0.3							3.74	1.14
Radium-226/228	pCi/L	1.37	1.56		2.52		1.88		0.629 U							5.19	2.75
Radium-228	pCi/L	0.902 U	1.03 U		1.97		1.47		0.329 U G							1.45 U	1.61
Redox Potential, Field	mV																
Selenium	mg/L		0.005 U		0.005 U		0.005 U		0.005							0.0015 J	0.005 U
Silver	mg/L															0.00064 J	
Sodium	mg/L	550	520		570		520		570	2800	2500	2500	2100	2000	2000	2300	2100
Strontium	mg/L															3.1	
Sulfate	mg/L	63 J	58		60		62		64	19	16	20	28	27	66	92	43
Temperature, Field	deg C	19.1	14.7	17.5		16.2		22				15	14	13	13	13	12.7
Thallium	mg/L		0.001 U		0.00034 J		0.001 U		0.001							0.001 U	0.001 U
Turbidity, Field	NTU	53.7	31.04	62.09		36.4		22.19			252	230	76.1	159	56.6	536.5	16.33
Vanadium	mg/L																
Zinc	mg/L															0.02	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

		Location	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152	96152
		Date	2022-07-20	2022-08-16	2022-08-16	2022-09-14	2022-10-21	2022-10-21	2022-12-06	2023-02-23	2023-02-23	2023-03-28	2023-04-14	2023-04-14	2023-09-15	2023-09-15	2024-03-08	2024-03-08
		Sample Type	N	FD	N	N	N	N	N	FD	N	N	FD	N	N	N	FD	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		590	480	480	500	510	510	500	470	470	520	540	520		550	530	
Aluminum	mg/L																	
Antimony	mg/L		0.002 U	0.002 U	0.002 U			0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0011 J	0.00081 J		0.0007 J	0.002 U	
Arsenic	mg/L		0.0092	0.0054	0.0054			0.004 J	0.0068	0.0061	0.0061	0.0034 J	0.013	0.011		0.018	0.0082	
Barium	mg/L		0.83	0.66	0.69			0.68	0.7	0.63	0.62	0.68	0.9	0.84		0.66	0.54	
Beryllium	mg/L		0.001 U	0.001 U	0.001 U			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0013	0.00089 J		0.001 U	0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L		590	480	480	500	510	510	500	470	470	520	540	520		550	530	
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L					0.48						0.45				0.44	0.48	
Bromide	mg/L																	
Cadmium	mg/L		0.001 U	0.001 U	0.001 U			0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J	0.001 U		0.001 U	0.001 U	
Calcium	mg/L					46						45				42	45	
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U	5 U	
Chloride	mg/L					3200	3300					3400				3300	3200	
Chromium	mg/L		0.005 U	0.0027 J	0.003 J			0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.016	0.013		0.0027 J	0.0035 J	
Cobalt	mg/L		0.003	0.0025	0.0025			0.0019	0.003	0.0027	0.0026	0.0023	0.0067	0.0057		0.0033	0.0027	
Conductivity, Field	uS/cm		10590	10594	10594	10779	10518		10407		10513				9399			10661
Copper	mg/L																	
Dissolved Oxygen, Field	mg/L		0.67	0.52	0.52	0.65	0.59		0.65		2.11				1.13			1.78
Dissolved Solids, Total	mg/L					4500 J	5200					5500				5300	5200	
Fluoride	mg/L		0.77 J	0.78	0.72 J	0.78 J	0.72	0.89	0.89	0.9 J	0.91 J	0.56	0.8	0.8		0.82	0.76	
Iron	mg/L																	
Lead	mg/L		0.00051 J	0.001 U	0.00045 J			0.001 U	0.001 U	0.001 U	0.001 U	0.0005 J	0.0055	0.0047		0.001	0.00056 J	
Lithium	mg/L		0.083	0.088	0.091			0.084	0.078	0.085	0.084	0.076	0.092	0.091		0.089	0.085	
Magnesium	mg/L		16	16	17	15		16	15	15	15	15	15	15		15	16	
Manganese	mg/L																	
Mercury	mg/L		0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 UF1	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U	
Molybdenum	mg/L		0.0038 J	0.0037 J	0.004 J			0.004 J	0.0036 J	0.0035 J	0.0035 J	0.0036 J	0.0051	0.0044 J		0.0043 J	0.0037 J	
Nickel	mg/L																	
Oxidation-Reduction Potential, Field	mV		-195.1	-109.4	-109.4	-141.2	-100.9		-101.2		-89.9				-114.9			-145.7
pH, Field	pH units		7.53	7.33	7.33	7.29	7.21		7.35		7.42				7.68			7.32
Potassium	mg/L		8.3	8.1	8.4	8.2		8.6	7.9	8.2	8.1	8.2	9.3	8.7		9	8.6	
Radium-226	pCi/L		2.33	1.49	1.09	1.92		1.46	1.63	1.51	1.46	1.58	1.81	1.42		2.24	1.38 J	
Radium-226/228	pCi/L		5.15	3.53	3.49	4.24 J		3.71	3.51	3.06	4.1	3.84	3.99	3.26		5.05 J	3.66 J	
Radium-228	pCi/L		2.81	2.04	2.4	2.32 J		2.25	1.88	1.55	2.64	2.26	2.18	1.84		2.8 J	2.28	
Redox Potential, Field	mV																	
Selenium	mg/L		0.005 U	0.005 U	0.005 U			0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00091 J	0.005 U		0.001 J	0.005 U	
Silver	mg/L																	
Sodium	mg/L		2200	2200	2300	2100		2200	2100	2100	2100	2000	2000	2000		2200	2100	
Strontium	mg/L																	
Sulfate	mg/L					49	42					61				78	75	
Temperature, Field	deg C		14.5	13.5	13.5	13.3	13.2		12.4		13.8				13.6			12.8
Thallium	mg/L		0.001 U	0.001 U	0.0017 J			0.00072 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00079 J	0.00068 J		0.00058 J	0.001 U	
Turbidity, Field	NTU		19.03	15.01	15.01	9	9.21		23.12		5.26				44.01			31.14
Vanadium	mg/L																	
Zinc	mg/L																	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	96152	96152	96152	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R
	Date	2024-03-08	2024-09-13	2024-09-13	2016-08-23	2016-10-03	2016-11-29	2017-03-21	2017-04-25	2017-06-06	2017-07-12	2018-03-22	2018-09-13	2019-03-29	2019-09-19	2020-03-15	2020-03-24
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	530		530			262	84					71	140	5 U	280	270
Aluminum	mg/L								0.56	0.47	0.085 B						
Antimony	mg/L	0.002 U		0.002	0.00059	0.00036	0.00024	0.00085 J	0.002 U	0.00057 J	0.002 U		0.002 U				
Arsenic	mg/L	0.0079		0.013	0.00237	0.00142	0.0013	0.0044 J	0.005 U	0.005 U	0.005 U		0.005 U				
Barium	mg/L	0.52		0.73	0.0315	0.0901	0.136	0.061 JB	0.027	0.037	0.03		0.028				
Beryllium	mg/L	0.001 U		0.001	0.000515	0.000196	0.00019	0.012	0.0048	0.00038 J	0.001 U		0.0052				
Bicarbonate Alkalinity as CaCO3	mg/L	530		530									71	140	5 U	280	270
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.46		0.46	0.448	0.423	0.463	0.23	0.25	0.48 B	0.48 B		0.32	0.39	0.18	0.54	0.51
Bromide	mg/L						0.2 U	5 U	5 U	5 U	5 U						
Cadmium	mg/L	0.001 U		0.001	8E-05	0.0001	2E-05 J	0.00036 J	0.00024 J	0.001 U	0.001 U		0.00027 J				
Calcium	mg/L	43		46	189	208	177	210 B	200	72	130		150	150	160	92	120
Carbonate Alkalinity as CaCO3	mg/L	5 U		5									5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	3200		3200	34.3	16.1	11.6	16	20	35	19		19	21	20	31	14
Chromium	mg/L	0.003 J		0.005	0.0034	0.0027	0.00261	0.0028 J	0.002 U	0.002 U	0.002 U		0.002 U				
Cobalt	mg/L	0.0025		0.0027	0.0234	0.0266	0.00693	0.3	0.29	0.012	0.0063		0.2				
Conductivity, Field	uS/cm		10626		3013	2934	2473					2256				2396	2274
Copper	mg/L								0.002 U	0.002 U	0.0034						
Dissolved Oxygen, Field	mg/L		1.1		4.65	3.74	1.71					0.12					
Dissolved Solids, Total	mg/L	5200		4300	2300	2160	1700	1800	1900 J	1800	1600 J		1600	1500	1600	1500 J	1700
Fluoride	mg/L	0.75		0.65	0.8	0.72	0.67	2.3	2.3	1.4	1.2		1.4	1.1	2.6	1.2	1
Iron	mg/L								30	0.94	0.14						
Lead	mg/L	0.0005 J		0.001	0.00648	0.00278	0.00277	0.0014 J	0.001 U	0.00045 J	0.001 U		0.001 U				
Lithium	mg/L	0.081		0.086	0.096	0.081	0.053	0.18	0.2	0.069	0.054		0.16				
Magnesium	mg/L	15		16			33.6		73	17	26			53	69	19	23
Manganese	mg/L							18 B	17	1.6	0.99						
Mercury	mg/L	0.0002 U		0.0002	8E-06	2E-06 J	1.5E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U				
Molybdenum	mg/L	0.0033 J		0.0042	0.0126	0.0114	0.00812	0.0065 J	0.0042 J	0.02	0.0068 J		0.003 J				
Nickel	mg/L								0.27	0.018	0.0061						
Oxidation-Reduction Potential, Field	mV		-156.7														
pH, Field	pH units		7.42		7.18	6.99	7.35	6.46	6.19	7.2	7.49	7.14	6.04	6.59	5.31	7.42	7.36
Potassium	mg/L	8.4		8.8			6.7	10 JB	11	5.3	5.8			15	11	5.5	5.8
Radium-226	pCi/L	1.06 J		1.28	0.634	0.403	0.968	0.476	0.475	0.335	0.05 U		0.328				
Radium-226/228	pCi/L	3.84 J		3.84	2.434	1.963	1.64	0.764	0.926	0.607	0.702		0.72				
Radium-228	pCi/L	2.78		2.55	1.8	1.56	0.672	0.288 U	0.451	0.272 U	0.652 J		0.393 U				
Redox Potential, Field	mV				36.1	136.7	227.2										
Selenium	mg/L	0.005 U		0.005	0.0009	0.0005	0.0006	0.0053 J	0.0017 J	0.0014 J	0.001 JB		0.005 U				
Silver	mg/L								0.001 U	0.001 U	0.001 U						
Sodium	mg/L	2100		2200			287	160 JB	190	490 B	330			280	150	420	350
Strontium	mg/L						3.22	1.5 JB	1.4	1.3 B	2.6						
Sulfate	mg/L	71		65	1290	1320	973	1200	1700	1000	1000		1100	1100	1100	1200	1100
Temperature, Field	deg C		15.6		14.3	14.6	13.3					12.2				13	13
Thallium	mg/L	0.001 U		0.001	5E-05 J	8E-05 J	2E-05 J	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U				
Turbidity, Field	NTU		14.27		141.2	65	49.6	113.6	87.4	19.2	30.7	7	69.4		85	4	10.5
Vanadium	mg/L																
Zinc	mg/L								0.61	0.018 J	0.02 U						

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96153R	96154R	96154R	96154R
	Date	2020-09-15	2021-03-19	2021-09-20	2022-03-30	2022-09-13	2022-10-25	2023-03-27	2023-09-14	2023-09-14	2024-03-08	2024-03-08	2024-09-30	2024-09-30	2016-08-23	2016-10-03	2016-11-29
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	230	260	350	250	260	250	260		260		270		220			558
Aluminum	mg/L				0.31												
Antimony	mg/L				0.00071 J			0.002 U		0.002 U		0.00077 J		0.002	0.00091	0.00098	0.00046
Arsenic	mg/L				0.002 U			0.005 U		0.005 U		0.00086 J		0.005	0.00644	0.00668	0.00409
Barium	mg/L				0.022			0.023		0.032		0.028		0.023	0.13	0.115	0.219
Beryllium	mg/L				0.00031 J			0.001 U		0.001 U		0.0014		0.001	0.000546	0.000319	0.000679
Bicarbonate Alkalinity as CaCO3	mg/L	230	260	120	250	260	250	260		260		270		220			
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.5	0.58	0.51	0.58 J	0.55		0.56		0.54		0.56		0.54	0.441	0.395	0.504
Bromide	mg/L																1.48
Cadmium	mg/L				0.0001 U			0.001 U		0.001 U		0.001 U		0.001	5E-05	2E-05	4E-05
Calcium	mg/L	140	120	120	59	120		120		130		110		130	9.41	5.34	10.5
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	230	5 U	5 U	5 U	5 U		5 U		5 U		5			
Chloride	mg/L	15	13	11	17	10	13	8.4 J		11		19		17	413	452	410
Chromium	mg/L				0.005 U			0.005 U		0.005 U		0.0014 J		0.0013	0.0022	0.0057	0.0121
Cobalt	mg/L				0.0013			0.00023 J		0.0006 J		0.0019		0.00015	0.00204	0.00176	0.00443
Conductivity, Field	uS/cm	2131	2165	2104	2783	2297	2021	2141	1960		2258		2089		2462	2602	2562
Copper	mg/L				0.005 U												
Dissolved Oxygen, Field	mg/L				0.61	2.65	8.73	2.94	3.51		2.67		3.05		0.68	0.59	1.16
Dissolved Solids, Total	mg/L	1500	1500	1500	140 J	1300 J	1300	1400		1400		1400		1400	1940	1550	1850
Fluoride	mg/L	0.81	0.87	0.8	0.83	0.75 J	0.87	0.71 J		0.6		0.74		0.74	3.32	3.36	3.4
Iron	mg/L				0.87												
Lead	mg/L				0.0005 U			0.001 U		0.001 U		0.001 U		0.001	0.00565	0.00371	0.00967
Lithium	mg/L				0.036 J			0.043		0.045		0.043		0.044	0.08	0.054	0.04
Magnesium	mg/L	28	23	23	11	23		23		24		22		22			4.24
Manganese	mg/L				0.13												
Mercury	mg/L				0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002 U		0.0002	2.5E-05	1E-05	3E-05
Molybdenum	mg/L				0.012			0.0045 J		0.0043 J		0.0035 J		0.0039	0.0557	0.102	0.0724
Nickel	mg/L				0.0019 J												
Oxidation-Reduction Potential, Field	mV				128.8	46.5	193	71.9	136.3		95.9		76.5				
pH, Field	pH units	7.23	7.4	7.41	7.62	7.37	7.63	7.57	6.88		7.42		7.48		9.5	9.36	8.67
Potassium	mg/L	6	5.5	5.8	3.8 J	5.8		5.9		6.5		5.6		5.7			7.64
Radium-226	pCi/L				0.1 U	0.279		0.0823 U		0.306		0.192 U		0.131 U	1.21	0.53	1.68
Radium-226/228	pCi/L				0.28 U	1.12		0.242 U		1.44		0.857		0.589	1.566	1.434	2.328
Radium-228	pCi/L				0.18 U	0.845		0.159 U		1.14		0.664		0.457 U	0.356	0.904	0.648
Redox Potential, Field	mV														97.1	54.8	175.9
Selenium	mg/L				0.005 U			0.005 U		0.005 U		0.005 U		0.005	0.001	0.001	0.002
Silver	mg/L				0.001 U												
Sodium	mg/L	330	320	320	510	310		320		310		350		300			478
Strontium	mg/L				1.4												0.425
Sulfate	mg/L	910	900	950	880	930	900	880 J		890		860		820	99.2	87.4	125
Temperature, Field	deg C	14	12	14	12	14.4	13.9	13.5	14.2		12.8		15.5		16.5	14.4	13.3
Thallium	mg/L				0.001 U			0.001 U		0.001 U		0.001 U		0.001	6.4E-05	0.000144	0.000121
Turbidity, Field	NTU	9.8	2.9	7.7	14.2	9.92	81.21	9.4	15.14		35.94		3.85		737	209.7	642.7
Vanadium	mg/L																
Zinc	mg/L				0.02 U												

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R
	Date	2017-01-30	2017-03-21	2017-04-25	2017-06-06	2017-07-12	2018-03-22	2018-09-13	2019-03-29	2019-03-29	2019-09-19	2020-03-12	2020-09-14	2021-03-19	2021-09-20	2022-03-30	2022-09-14
	Sample Type	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	607	600					460	350	350	280	560	530	570	550 J	550	520
Aluminum	mg/L			0.42	1.4	0.96 B										0.4	
Antimony	mg/L	0.00078	0.0014 J	0.0014 J	0.002 U	0.0006 JB										0.002 U	
Arsenic	mg/L	0.00277	0.0049 J	0.0093	0.0022 J	0.0025 J										0.0023	
Barium	mg/L	0.194	0.28 JB	0.067	0.12	0.11										0.16	
Beryllium	mg/L	0.000166	0.001 U	0.001 U	0.001 UJ	0.001 U										0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L							110	5 U	5 U	5 U	280	470	410	500 J	440	460
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.454	0.49	0.5	0.53 B	0.53 B			0.38	0.38	0.39	0.43	0.45	0.51	0.53	0.61 J	0.48
Bromide	mg/L	1.36	1.5 J	1.4 J	2.4	1.8 J											
Cadmium	mg/L	4E-05	0.001 U	0.001 U	0.001 U	0.001 U										0.0001 U	
Calcium	mg/L	22.1	31 B	2.1	4.8	4.3		3.2	61	61	26	17	7	8.3	14	11	35
Carbonate Alkalinity as CaCO3	mg/L							350	130	130	180	280	58	160	48 J	110	57
Chloride	mg/L	446	410	410	470	490		410	340	330	350	490	470	370	520	490	430
Chromium	mg/L	0.00249	0.0051 J	0.002 U	0.0078 J	0.0013 J										0.005 U	
Cobalt	mg/L	0.000799	0.00095 J	0.00037 J	0.00042 J	0.00022 J										0.0002 J	
Conductivity, Field	uS/cm	2549					2650					2483	2545	2551	2567	2802	2529
Copper	mg/L			0.002 U	0.0043 B	0.002 U										0.005 U	
Dissolved Oxygen, Field	mg/L	1.02					0.15									0.84	0.51
Dissolved Solids, Total	mg/L	1590	1400	1400 J	1500	1500 J			860	850	900	1400	1400	1400	1300	1400	1200
Fluoride	mg/L	3.33	4.2	4.5	4.1	4.5		4.4	3.3	3.3	3.9	4	4.2	3.8	4.4	4.4	4.2
Iron	mg/L			0.29	1.4	0.64										0.33 J	
Lead	mg/L	0.0031	0.0021 J	0.001 U	0.00077 J	0.00048 J										0.0005 U	
Lithium	mg/L	0.137	0.24	0.19	0.048	0.049										0.036 J	
Magnesium	mg/L	1.48		0.55 J	1.5	1.4		0.51 J	0.34 J	0.41 J	0.24 J	1.5	1.3	1.2	1.5	1.3	12
Manganese	mg/L		0.02 B	0.011	0.013	0.0053										0.0046 J	
Mercury	mg/L	1.8E-05	0.0002 U	0.0002 U	0.0002 U	0.0002 U										0.0002 U	0.0002 U
Molybdenum	mg/L	0.0692	0.09 J	0.093	0.1	0.1										0.1	
Nickel	mg/L			0.002 U	0.0028	0.002 U										0.005 U	
Oxidation-Reduction Potential, Field	mV															40.2	-19.5
pH, Field	pH units	9.64	10.67	10.32	8.76	8.82	9.85	10.11		12.06	11.7	9.76	8.93	9.18	8.57	8.97	8.62
Potassium	mg/L	33.8	58 JB	41	6	6.1		12	20	20	10	7.2	3.6	4.4	3.8	4 J	14
Radium-226	pCi/L	0.96	0.696	0.664	0.251	0.213										0.296	1.39
Radium-226/228	pCi/L	1.762	1.21	0.894	0.655	0.577										0.557	2.53 J
Radium-228	pCi/L	0.802	0.51	0.23 U	0.405	0.364 UJ										0.26 U	1.14 J
Redox Potential, Field	mV	139.8															
Selenium	mg/L	0.0006	0.00096 J	0.005 U	0.005 U	0.005 U										0.0011 J	
Silver	mg/L			0.001 U	0.0017	0.00021 J										0.001 U	
Sodium	mg/L	449	540 JB	510	540 B	590		450	340	340	320	520	500	530	570	600	500
Strontium	mg/L	1.37	2.6 JB	0.57	0.36 B	0.38										0.53	
Sulfate	mg/L	66.8	64	60	100	100		42	29	29	33	33	36	36	41	42	72
Temperature, Field	deg C	11.2					12.6					13	14	13	14	16	15.4
Thallium	mg/L	0.000114	0.001 U	0.001 U	0.001 U	0.001 U										0.001 U	
Turbidity, Field	NTU	349.1	98.6	63.9	44.8	16.2	6	6.23			41	140	87.9	53.9	59.9	22.8	811.12
Vanadium	mg/L																
Zinc	mg/L			0.02 U	0.02 U	0.02 U										0.02 U	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96154R	96156	96156	96156	96156	96156
	Date	2022-10-19	2023-03-27	2023-03-27	2023-09-14	2023-09-14	2024-03-06	2024-03-06	2024-03-06	2024-09-26	2024-09-26	2024-09-26	2016-08-23	2016-10-03	2016-11-29	2017-01-30	2017-03-21
	Sample Type	N	FD	N	N	N	FD	N	N	FD	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	510	600	600		560	600		610	450		450				165	150
Aluminum	mg/L																
Antimony	mg/L		0.00066 J	0.00077 J		0.002 U	0.00061 J		0.002 U	0.00058		0.00062	0.0001 J	0.00141	0.00208	0.00022	0.0025
Arsenic	mg/L		0.0043 J	0.0044 J		0.0029 J	0.003 J		0.0033 J	0.0063		0.0064	0.0141	0.0184	0.0398	0.00202	0.0035 J
Barium	mg/L		0.38	0.39		0.19	0.46		0.47	0.1		0.11	16.2	17.4	17.7	14.8	16 JB
Beryllium	mg/L		0.001 U	0.001 U		0.001 U	0.001 U		0.001 U	0.001		0.001	0.0002 U	0.000129	0.0003 J	2E-05 U	0.00043 J
Bicarbonate Alkalinity as CaCO3	mg/L	450	280	280		510	65		75	340		290					
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L		0.48	0.48		0.53	0.46		0.45	0.39		0.4	0.394	0.357	0.375	0.379	0.46
Bromide	mg/L															58.6	57
Cadmium	mg/L		0.001 U	0.001 U		0.001 U	0.001 U		0.001 U	9E-05		8.8E-05	0.00022	0.00221	0.00419	0.0001	0.00043 J
Calcium	mg/L		62	65		9.6	100		100	3.7		3.8	409	354	399	346	380 B
Carbonate Alkalinity as CaCO3	mg/L	63	320	320		52	530		530	110		160					
Chloride	mg/L	440	450	460		560	480		430	480		480	11700			12000	13000
Chromium	mg/L		0.0062	0.0061		0.011	0.0027 J		0.0025 J	0.0015		0.0017	0.0011	0.0195	0.0598	0.000629	0.0011 J
Cobalt	mg/L		0.0013	0.0013		0.0024	0.00061 J		0.00054 J	0.00026		0.00033	0.00194	0.00371	0.00517	0.00145	0.0021
Conductivity, Field	uS/cm	2529		2720	2602			2806			2576		30150	32283	17682	30266	
Copper	mg/L																
Dissolved Oxygen, Field	mg/L	0.65		0.69	2.84			1.93			2.25		2.61	2.64	5.31	4.89	
Dissolved Solids, Total	mg/L	1500	1400	1400		1500	1300		1300	1300		1200	18300			18100	15000
Fluoride	mg/L	4.1	4.2	4.2		4.2	3.7		3.8	4.2		3.9	0.33			2 U	2.5 U
Iron	mg/L																
Lead	mg/L		0.002	0.0019		0.0028	0.0012		0.001	0.001		0.001	0.00236	0.0218	0.0455	0.00115	0.0022 J
Lithium	mg/L		0.065	0.067		0.041	0.066		0.065	0.052		0.054	0.269	0.252	0.296	0.294	0.22
Magnesium	mg/L		1.8	1.8		2.6	1.2		1.2	0.84		0.89			117	111	
Manganese	mg/L																0.93 B
Mercury	mg/L		0.0002 U	0.0002 U		0.0002 U	0.0002 U		0.0002 U	0.0002		0.0002	5E-06 U	0.0002 U	2.1E-05	1.1E-05	0.0002 U
Molybdenum	mg/L		0.11	0.11		0.11	0.11		0.1	0.1		0.11	0.00987	0.017	0.0225	0.0054	0.0056 J
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV	148		24.1	160.5			113.4			16.9						
pH, Field	pH units	8.38		9.95	8.19			9.97			9.22		7.07	6.83	7.23	6.77	8.93
Potassium	mg/L		7.6	7.9		5.7	9.7		9.4	3.7		3.8			36.5	47.4	22 JB
Radium-226	pCi/L		0.937	1.39		0.506 U	2.3		2.46	0.355		0.228 U	33.8			51.2	94
Radium-226/228	pCi/L		1.4	2.78		7.18	3.27		2.87	0.664		1.58	75.85	41.96		122.3	189
Radium-228	pCi/L		0.467 U	1.39		6.67	0.973		0.417 U	0.308 U		1.36	42.05	41.96		71.1	95.2
Redox Potential, Field	mV												-82.4	-66.3	176.5	102.7	
Selenium	mg/L		0.005 U	0.005 U		0.005 U	0.005 U		0.005 U	0.005		0.005	0.0006 J	0.0004 J	0.001 J	0.0001	0.0013 J
Silver	mg/L																
Sodium	mg/L		550	560		600	540		520	530		550			2620	1400	6800 JB
Strontium	mg/L														30.4	25.3	31 JB
Sulfate	mg/L	65	44	44		43	43		43	43		44	1.9			1 J	50 U
Temperature, Field	deg C	13.2		13.6	14.5			13.3			16.9		15.2	16.1	15.7	9.1	
Thallium	mg/L		0.001 U	0.00026 J		0.001 U	0.00046 J		0.00032 J	0.001		0.001	0.0005 U	0.0002 J	0.0002 J	3E-05 J	0.001 U
Turbidity, Field	NTU	762.15		184.7	167.8			114.48			23.99		9	38.2	123.8	64.8	81.7
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	96156	96156	96156	96156	96157	96157	96157	96157	96157	96157	96157	96157	96157	96157	96157	96157
	Date	2017-04-25	2017-06-06	2017-07-12	2018-03-26	2021-09-28	2022-03-29	2022-09-12	2022-12-02	2023-03-29	2023-09-18	2023-09-18	2023-09-18	2024-03-11	2024-03-11	2024-09-17	2024-09-17
	Sample Type	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L					440	340	380		340	370		370		380		340
Aluminum	mg/L	0.05 U	0.079	0.084 B			0.12										
Antimony	mg/L	0.002 U	0.0017 J	0.0012 JB			0.002 U			0.002 U	0.002 U		0.002 U		0.002 U		0.002
Arsenic	mg/L	0.0042 J	0.0043 J	0.0036 J			0.03			0.03	0.037		0.037		0.031		0.054
Barium	mg/L	16	16	15			0.42			0.46	0.42		0.42		0.4		0.54
Beryllium	mg/L	0.001 U	0.001 UJ	0.001 U			0.001 U			0.001 U	0.001 U		0.001 U		0.001 U		0.001
Bicarbonate Alkalinity as CaCO3	mg/L					440	340	380		340	370		370		380		340
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.4	0.43 B	0.4 B		0.15	0.16 J	0.12		0.13	0.14		0.14		0.14		0.13
Bromide	mg/L	73	67	51													
Cadmium	mg/L	0.00027 J	0.00088 J	0.0015			0.0001 U			0.001 U	0.001 U		0.001 U		0.001 U		0.001
Calcium	mg/L	380	390	370		55	61	51		61	54		55		54		70
Carbonate Alkalinity as CaCO3	mg/L					5 U	5 U	5 U		5 U	5 U		5 U		5 U		5
Chloride	mg/L	17000	12000	12000		240	290	210		330	280		270		250		480
Chromium	mg/L	0.002 U	0.0077 J	0.016			0.0014 J			0.005 U	0.005 U		0.005 U		0.0015 J		0.0028
Cobalt	mg/L	0.0016	0.0015	0.0017			0.00054			0.00035 J	0.00025 J		0.00025 J		0.00034 J		0.00065
Conductivity, Field	uS/cm				32509	1358	1639	1481		1829		1430		1497		2214	
Copper	mg/L	0.82	1.3 B	1.3			0.005 U										
Dissolved Oxygen, Field	mg/L				0.24		0.35	1.44		0.48		0.81		1.84		0.4	
Dissolved Solids, Total	mg/L	19000 J	21000	15000 J		740	800 J		960	890	480		690		750		960
Fluoride	mg/L	5 U	1.3 U	2.5 U		0.93	0.88	0.86		0.82	0.73		0.73		0.84		0.92
Iron	mg/L	4.5	7.7	2.7			2.9										
Lead	mg/L	0.001 U	0.0055	0.0033			0.00053			0.001 U	0.001 U		0.001 U		0.001 U		0.001
Lithium	mg/L	0.25	0.25	0.23			0.0051 J			0.0027 J	0.0051 J		0.0064 J		0.0052 J		0.0089
Magnesium	mg/L	130	140	130		12	12	12		12	11		12		12		13
Manganese	mg/L	0.75	0.79	0.74			0.16										
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U			0.0002 U	0.0002 U		0.0002 U	0.0002 U		0.0002 U		0.0002 UJ		0.0002
Molybdenum	mg/L	0.0073 J	0.017	0.0086 J			0.0064			0.0066	0.007		0.007		0.0075		0.006
Nickel	mg/L	0.0045	0.0049	0.055			0.005 U										
Oxidation-Reduction Potential, Field	mV						-212.6	-159.1		-197.4		-168.8		-181.3		-222.9	
pH, Field	pH units	8.32	7.26	8.04	7.4	7.6	7.49	7.47		7.48		7.76		7.5		7.52	
Potassium	mg/L	22	22	21		1.6	1.5	1.6		1.6	1.5		1.5		1.5		1.9
Radium-226	pCi/L	86.5	64.4	59.3 J			0.518	0.818 J		0.546	0.749		0.394		0.586 J		0.549
Radium-226/228	pCi/L	189	138	119 J			1.49	1.54 J		1.26	1.83		1.47		1.72 J		1.44
Radium-228	pCi/L	103	73.4	60.2			0.974	0.724 U		0.71	1.09		1.08		1.13		0.889
Redox Potential, Field	mV																
Selenium	mg/L	0.005 U	0.00091 J	0.0011 JB			0.005 U			0.005 U	0.005 U		0.005 U		0.005 U		0.005
Silver	mg/L	6.6E-05 J	0.001 U	8.9E-05 J			0.001 U										
Sodium	mg/L	6100	1 U	6400		220	250	210		260	240		240		240		320
Strontium	mg/L	33	31 B	27			0.84										
Sulfate	mg/L	100 U	25 U	50 U		4.3	2	3.4		0.87 J	1.4		1.5		1.7		1
Temperature, Field	deg C				12.7	16	14	17.1		13.7		15.3		13.9		16.8	
Thallium	mg/L	0.001 U	0.001 U	0.001 U			0.001 U			0.001 U	0.001 U		0.001 U		0.00031 J		0.001
Turbidity, Field	NTU	72.5	83.2	48	1	2.8	36.6	13.04		9.29		3.63		5.35		23.64	
Vanadium	mg/L																
Zinc	mg/L	0.19	0.18	0.16			0.02 U										

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	96158	96158	96158	96158	96158	96158	96158	96158	96158	96158	96158	96158	96158	96158	9631	9631	9631
	Date	2021-09-28	2022-03-29	2022-03-29	2022-09-12	2022-12-02	2023-03-29	2023-03-29	2023-09-18	2023-09-18	2024-03-11	2024-03-11	2024-09-17	2024-09-17	2021-09-27	2024-02-21	2024-02-21
	Sample Type	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	FD	FD
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	330	320	320	340		320	310		340		340		330	290	65	73
Aluminum	mg/L		1.5	1.4													
Antimony	mg/L		0.002 U	0.00089 J			0.002 U	0.002 U		0.002 U		0.002 U		0.002			0.002 U
Arsenic	mg/L		0.0011 J	0.0011 J			0.005 U	0.005 U		0.0011 J		0.005 U		0.005 U			0.0043 J
Barium	mg/L		0.43	0.42			0.43	0.42		0.37		0.33		0.37			38
Beryllium	mg/L		0.001 U	0.001 U			0.001 U	0.001 U		0.001 U		0.001 U		0.001			0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	330	320	320	340		320	310		340		340		330	290	65	73
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.4	0.39 J	0.4 J	0.38		0.38	0.38		0.36		0.4		0.38	0.38	0.35	
Bromide	mg/L																
Cadmium	mg/L		0.0001 U	7.5E-05 J			0.001 U	0.001 U		0.001 U		0.001 U		0.001			0.00032 J
Calcium	mg/L	64	67	66	64		63	62		63		67		65	310	1400	1600
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U		5 U	5 U		5 U		5 U		5	5 U	5 U	5 U
Chloride	mg/L	1100	1000	1000	1100		1100	1100		1200 J		1500		1100	9700	30000	
Chromium	mg/L		0.0056	0.0059			0.005 U	0.005 U		0.007		0.005 U		0.007			0.0051
Cobalt	mg/L		0.0029	0.0029			0.00067 J	0.00073 J		0.0017		0.00071 J		0.0016			0.0056
Conductivity, Field	uS/cm	3724	4072	4072	3890			3751	3491		4001		4065		27285		
Copper	mg/L		0.0026 J	0.0025 J													
Dissolved Oxygen, Field	mg/L		1.12	1.12	0.91			0.37	0.86		1.47		0.45				
Dissolved Solids, Total	mg/L	2000	2000	2000		1800	1900	1900		3100		1900		1900	2900	35000	
Fluoride	mg/L	1.3	1.2	1.3	1.2		1.2	1.2		1		1.1		1.1	2.5 U	2.5 U	2.5 U
Iron	mg/L		3.6	3.6													
Lead	mg/L		0.0018	0.0018			0.001 U	0.001 U		0.0011		0.001 U		0.00093			0.0011
Lithium	mg/L		0.039	0.037			0.03	0.031		0.038		0.035		0.038			0.33
Magnesium	mg/L	13	14	13	14		13	13		13		14		13	87	440	440
Manganese	mg/L		0.18	0.17													
Mercury	mg/L		0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002			0.0002 U
Molybdenum	mg/L		0.005	0.0051			0.0089	0.0088		0.0095		0.0096		0.011			0.0067
Nickel	mg/L		0.0048 J	0.0046 J													
Oxidation-Reduction Potential, Field	mV		-105.2	-105.2	-101.1			-109.6	-69.7		-81		-155.3				
pH, Field	pH units	7.34	7.29	7.29	7.31			7.3	7.58		7.27		7.32		7.16		
Potassium	mg/L	3.3	3.5	3.3	3.3		3.1	3.2		3.2		3.2		3.6	10	23	23
Radium-226	pCi/L		0.821	1.09	0.92 J		1.17	0.809		0.872		0.641		0.8			37.6 J
Radium-226/228	pCi/L		3.57	3.52	2.68 J		2.46	2.25		2.69		2.68		2.4			108 J
Radium-228	pCi/L		2.75	2.43	1.76		1.28	1.44		1.82		2.04		1.6			70.4 J
Redox Potential, Field	mV																
Selenium	mg/L		0.005 U	0.005 U			0.005 U	0.005 U		0.005 U		0.005 U		0.005			0.0012 J
Silver	mg/L		0.001 U	0.00062 J													
Sodium	mg/L	700	750	830	730		680	680		670		710		670	5900	12000	12000
Strontium	mg/L		2.2	2.5													
Sulfate	mg/L	20	15	16	21		16	16		22		40		41	34 J	50 U	
Temperature, Field	deg C	16	13	13	18.2			14.2	15.5		14.3		17.2		16		
Thallium	mg/L		0.001 U	0.001 U			0.001 U	0.001 U		0.0006 J		0.001 U		0.001			0.001 U
Turbidity, Field	NTU	1.5	71.3	71.3	30.1			11.22	20.15		5.87		68.43		4.7		
Vanadium	mg/L																
Zinc	mg/L		0.02 U	0.02 U													

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631
	Date	2024-02-21	2024-02-21	2024-02-21	2024-03-13	2024-03-13	2024-03-13	2024-04-10	2024-04-10	2024-04-10	2024-04-10	2024-04-10	2024-04-10	2024-06-26	2024-06-26	2024-06-26	2024-06-26	2024-06-26
	Sample Type	N	N	N	FD	N	N	FD	FD	N	N	N	N	FD	FD	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L		66	74	66		62	95	88		96	98	72	78		75	120	
Aluminum	mg/L																	
Antimony	mg/L			0.00067 J	0.002 U		0.002 U		0.002 U			0.002 U		0.002 U			0.00085 J	
Arsenic	mg/L			0.0043 J	0.0031 J		0.0023 J		0.0027 J			0.0021 J		0.0021 J			0.0022 J	
Barium	mg/L			33	37		37		35			37		40			40	
Beryllium	mg/L			0.001 U	0.001 U		0.001 U		0.00066 J			0.001 U		0.001 U			0.001 UJ	
Bicarbonate Alkalinity as CaCO3	mg/L		66	74	66		62	95	88		96	98	72	78		75	120	
Bicarbonate Alkalinity as HCO3	mg/L																	
Boron	mg/L		0.35		0.39		0.38	0.35 J			0.35 J		0.35			0.37		
Bromide	mg/L																	
Cadmium	mg/L			0.00048 J	0.001 U		0.001 U		0.001 U			0.001 U		0.001 U			0.001 U	
Calcium	mg/L		1400	1400	1600		1600	1400	1400		1300	1400	1400	1400		1500	1600	
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U		5 U	5 U	5 U		5 U	5 U	5 U	5 U		5 U	5 U	
Chloride	mg/L		29000		29000		28000	26000			27000		29000			30000		
Chromium	mg/L			0.005	0.0046 J		0.0029 J		0.005 U			0.005 U		0.005 U			0.005 U	
Cobalt	mg/L			0.0056	0.0018		0.0019		0.0036			0.0023 J		0.0011			0.0012	
Conductivity, Field	uS/cm	64232				63772				64103					63542			
Copper	mg/L																	
Dissolved Oxygen, Field	mg/L	0.5				2.15				0.2					0.76			
Dissolved Solids, Total	mg/L		35000		33000 J		17000 J	34000			35000		42000			37000		
Fluoride	mg/L		2.5 U	2.5 U	5 U		5 U	2.5 U	5 U		2.5 U	5 U	1.3 U	2.5 U		1.3 U	2.5 U	
Iron	mg/L																	
Lead	mg/L			0.0011	0.001 U		0.001 U		0.001 U			0.001 U		0.001 U			0.001 U	
Lithium	mg/L			0.33	0.34		0.34		0.31			0.35		0.34			0.36	
Magnesium	mg/L		410	430	430		430	490	470		450	480	440	410		470	460	
Manganese	mg/L																	
Mercury	mg/L			0.0002 U	0.0002 U		0.0002 U		0.0002 U			0.0002 U		0.0002 U			0.0002 UJ	
Molybdenum	mg/L			0.007	0.0034 J		0.0035 J		0.0084			0.0055		0.0018 J			0.0022 J	
Nickel	mg/L																	
Oxidation-Reduction Potential, Field	mV	-90.1				-93.7				-114.6					-105.6			
pH, Field	pH units	7.02				6.89				7.15					7.02			
Potassium	mg/L		21	22	23		23	22	25		22	26	23	22		25	24	
Radium-226	pCi/L			35.5 J	35 J		40.7 J		39.9 J			44.4 J		28.5 J			28.8 J	
Radium-226/228	pCi/L			107 J	108 J		107 J		107 J			118 J		107 J			97.2 J	
Radium-228	pCi/L			71.6 J	73.4 J		65.9 J		67.6 J			73.8 J		78.3 J			68.4 J	
Redox Potential, Field	mV																	
Selenium	mg/L			0.0022 J	0.0016 J		0.0014 J		0.0039 J			0.0033 J		0.005 U			0.0011 J	
Silver	mg/L																	
Sodium	mg/L		11000	12000	16000		14000	13000	12000		13000	13000	13000	13000		13000	13000	
Strontium	mg/L																	
Sulfate	mg/L		50 U		100 U		100 U	19 J			50 U		25 U			25 U		
Temperature, Field	deg C	13.5				15.1				13.8					16.7			
Thallium	mg/L			0.001 U	0.001 U		0.001 U		0.001 U			0.001 U		0.02 U			0.005 U	
Turbidity, Field	NTU	28.93				13.75				8.75					7.03			
Vanadium	mg/L																	
Zinc	mg/L																	

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9631	9631	9631	9631	9631	9631	9631	9631	9631	9631	9801	9801	9801	9801	9801	9801	9801
	Date	2024-08-29	2024-08-29	2024-08-29	2024-08-29	2024-08-29	2024-09-20	2024-10-14	2024-10-14	2024-10-14	2016-08-24	2016-10-06	2016-12-02	2017-02-01	2017-03-29	2017-06-09	2017-06-09
	Sample Type	FD	FD	N	N	N	N	N	N	N	N	N	N	N	N	FD	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	81	71		80	76	70		74	82			141	160			
Aluminum	mg/L														0.25 U	1.3 U	1.3 U
Antimony	mg/L		0.002 U			0.002 U	0.002			0.00064 J	0.0005 U	0.0005 U	5E-05 U	0.0005 U	0.01 U	0.05 U	0.05 U
Arsenic	mg/L		0.0021 J			0.0023 J	0.0026			0.0028 J	0.00075	0.00109	0.00072	0.00056	0.025 U	0.13 U	0.13 U
Barium	mg/L		46			41	35			39	5.16	4.84	4.63	4.33	5 B	4.7 B	5 B
Beryllium	mg/L		0.001 U			0.001 U	0.001			0.001 U	0.0002 U	0.0002 U	2E-05 U	0.0002 U	0.005 U	0.001 U	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	81	71		80	76	70		74	82							
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.41			0.41		0.37		0.38		0.378	0.329	0.353	0.404	0.42	0.45	0.45
Bromide	mg/L												34.3	36.2	41	36 J	35 J
Cadmium	mg/L		0.00011 J			0.00015 J	0.00016			0.0002 J	0.0002 U	0.0002 U	2E-05 U	0.0002 U	0.005 U	0.025 U	0.025 U
Calcium	mg/L	1500	1800		1100	1600	1400		1700	1800	202	198	184	180	180 B	170	190
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U		5 U	5 U	5		5 U	5 U							
Chloride	mg/L	29000			30000		29000		25000		7930	7950	7210	7330	8800	8300	8100
Chromium	mg/L		0.0012 J			0.0012 J	0.0046			0.002 J	0.0045	0.0024	0.00216	0.000768	0.0017 J	0.05 U	0.05 U
Cobalt	mg/L		0.002			0.0021	0.0023			0.0042	0.00173	0.00172	0.000975	0.000957	0.0014 J	0.025 U	0.025 U
Conductivity, Field	uS/cm			61360			62427	68146			2129	23618	23470	22980			
Copper	mg/L														0.01 U	0.05 U	0.05 U
Dissolved Oxygen, Field	mg/L			0.95			0.29	0.6			3.03	0.71	2.8	1.53			
Dissolved Solids, Total	mg/L	43000			41000		41000		42000 J		12600	13000	12300	11300	13000 J	14000	14000
Fluoride	mg/L	2.5 U	5 U		2.5 U	5 U	5		5 U	5 U	0.87	0.61	0.6 J	0.91	1 J	5 U	5 U
Iron	mg/L														0.51 JB	2.5 U	2.5 U
Lead	mg/L		0.001 U			0.00049 J	0.00079			0.001 U	0.0001 J	0.0001 J	0.000354	9E-05 J	0.005 U	0.005 U	0.005 U
Lithium	mg/L		0.32			0.33	0.34			0.36	0.141	0.142	0.16	0.159	0.12	0.13	0.12
Magnesium	mg/L	380	450		380	460	490		490	480			54.6	55.2	63 B	58	63
Manganese	mg/L														0.57	0.44	0.47
Mercury	mg/L		0.0002 U			0.0002 U	0.0002			0.0002 UJ	5E-06 U	1.6E-05	1.6E-05	1E-05	0.0002 U	0.0002 U	0.0002 U
Molybdenum	mg/L		0.0024 J			0.0026 J	0.0036			0.0048 J	0.00533	0.00723	0.00651	0.0068	0.0042 J	0.05 U	0.05 U
Nickel	mg/L														0.01 U	0.05 U	0.05 U
Oxidation-Reduction Potential, Field	mV			-108.2			-138.1	-96.2									
pH, Field	pH units			7.04			7	7.07			6.95	7.16	6.92	7.03	7.2		7.21
Potassium	mg/L	20	23		20	24	25		25	25			14.4	18.6	9.6 B	8.3 J	9.3 J
Radium-226	pCi/L		32.6 J			33.7 J	32.8			28.7 J	3.39	6.84	3.47	4.19	4.48	4.49	3.83
Radium-226/228	pCi/L		111 J			111 J	106			94.1 J	8.15	13.99	7.83	9.95	10.5	10.3	11.3
Radium-228	pCi/L		78.2 J			77.2 J	73.1			65.5 J	4.76	7.15	4.36	5.76	5.98	5.8	7.43
Redox Potential, Field	mV										124.2	-91.8	85.3	-87.4			
Selenium	mg/L		0.005 U			0.005 U	0.0014			0.0016 J	0.001 U	0.001 U	0.001 U	0.001 U	0.025 U	0.13 U	0.13 U
Silver	mg/L														0.005 U	0.005 U	0.005 U
Sodium	mg/L	12000	13000		8700	13000	13000		14000	14000			4310	1650	4400 JB	4200	4700
Strontium	mg/L												16.4	15.6	19 B	13 B	13 B
Sulfate	mg/L	1000 U			1000 U		100		100 U		3.4	7.2	6.7	3.4	8.6 J	100 U	100 U
Temperature, Field	deg C			21.5			19.6	15.4			19.72	16.5	14.2	13.5			
Thallium	mg/L		0.001 U			0.001 U	0.001			0.00052 J	0.0002 J	0.0001 J	0.000528	0.0005 U	0.005 U	0.005 U	0.005 U
Turbidity, Field	NTU			4.87			8.28	8.11			4.7	9.7	3	3.9	7.7		3.2
Vanadium	mg/L																
Zinc	mg/L														0.1 U	0.5 U	0.5 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801	9801
	Date	2017-07-17	2018-03-16	2018-09-12	2019-03-12	2019-09-24	2020-03-24	2021-09-27	2021-09-27	2022-03-25	2022-09-19	2023-04-04	2023-09-22	2023-09-22	2024-03-14	2024-03-14	2024-09-11
	Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L		130	130	140	130	140	150	150	140	140	150		140		140	140
Aluminum	mg/L	0.1 U								0.05 U							
Antimony	mg/L	0.004 U		0.002 U						0.002 U		0.002 U		0.002 U		0.002 U	0.002
Arsenic	mg/L	0.01 U		0.005 U						0.00088 J		0.005 U		0.005 U		0.005 U	0.00093
Barium	mg/L	5.3		4.8						5.1		4.7		4.7		4.7	4.8
Beryllium	mg/L	0.002 U		0.001 U						0.001 U		0.001 U		0.001 U		0.001 U	0.001
Bicarbonate Alkalinity as CaCO3	mg/L		130	130		130	140	150	150	140	140	150		140		140	140
Bicarbonate Alkalinity as HCO3	mg/L				140												
Boron	mg/L	0.52 JB	0.44	0.44	0.44	0.42	0.38	0.43	0.4	0.49 J	0.44	0.43		0.39		0.42	0.38
Bromide	mg/L	39 J															
Cadmium	mg/L	0.002 U		0.001 U						0.0001 U		0.001 U		0.001 U		0.001 U	0.001
Calcium	mg/L	200	220	200	180	250	180	200	190	210	180	180		200		200	190
Carbonate Alkalinity as CaCO3	mg/L		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U		5 U		5 U	5
Chloride	mg/L	9000	8300	8400	150	9300	8900	7600	7700	7700	7600	8400		8500		8000	7700
Chromium	mg/L	0.0025 J		0.0018 J						0.005 U		0.005 U		0.005 U		0.0012 J	0.0019
Cobalt	mg/L	0.0011 J		0.0015						0.0011		0.00099 J		0.001		0.0011	0.0013
Conductivity, Field	uS/cm		22901				21314	19963	19963	22640	22895	21700	17637		22504		
Copper	mg/L	0.004 U								0.005 U							
Dissolved Oxygen, Field	mg/L		0.22							0.03	0.35	0.34	0.78		1.28		
Dissolved Solids, Total	mg/L	14000 J	13000	14000	11000 HT	14000	11000	8100	9300	12000	11000	12000		9100		11000	12000
Fluoride	mg/L	5 U	2.5 U	1	0.05 U	1.1	1.1	0.9	0.85	0.93	0.92 U	0.9		0.99		0.74	0.77
Iron	mg/L	0.43								0.098 J							
Lead	mg/L	0.002 U		0.001 U						0.0005 U		0.001 U		0.001 U		0.001 U	0.001
Lithium	mg/L	0.15		0.13						0.2 U		0.12		0.13		0.13	0.12
Magnesium	mg/L	63	61		69	83 J	54	56	53	76	58	58		63		58	60
Manganese	mg/L	0.51								0.58							
Mercury	mg/L	0.0002 U		0.0002 U						0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U	0.0002
Molybdenum	mg/L	0.004 J		0.0039 J						0.0041 J		0.0036 J		0.0034 J		0.0038 J	0.0044
Nickel	mg/L	0.0035 J								0.005 U							
Oxidation-Reduction Potential, Field	mV									-131.4	-81	-69.8	68.8		17.3		
pH, Field	pH units	7.16	7.32	7.34	7.51	7.49	7.4	7.26	7.26	7.43	7.35	7.42	7.33		7.28		
Potassium	mg/L	9.5	9.2		9.1	12 J	8.7	9.5	8.9	12	8.5	8.8		9.6		9.4	9.2
Radium-226	pCi/L	4.35 J		5.31						3.87	3.69	3.67		2.88		3.39	2.32
Radium-226/228	pCi/L	11 J		11.5						8.7	9.34 J	7.99 J		8.11		7.61 J	7.53
Radium-228	pCi/L	6.64 J		6.16						4.82	5.64 J	4.32 J		5.23		4.22 J	5.2
Redox Potential, Field	mV																
Selenium	mg/L	0.01 U		0.005 U						0.0015 J		0.005 U		0.005 U		0.005 U	0.005
Silver	mg/L	0.002 U								0.001 U							
Sodium	mg/L	4600 JB	4700		4800	4400	4200	4400	4400	1300	5200	4700		4600		4600	5100
Strontium	mg/L	20								1.3							
Sulfate	mg/L	100 U	50 U	6.3 J	1 U	5.2 J	8.9 J	5.9 J	5.9 J	3.7 J	10 U	10 U		11		5.9 J	3.9
Temperature, Field	deg C		14.9				14	15	15	14	17.7	15.5	16.4		15.4		
Thallium	mg/L	0.002 U		0.001 U						0.001 U		0.001 U		0.001 U		0.001 U	0.001
Turbidity, Field	NTU	3.5	1.5	4.22		6	1.4	5.4	5.4	3.2	3.32	4.15	16.11		5.08		
Vanadium	mg/L	0.01 U															
Zinc	mg/L	0.04 U								0.02 U							

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802	9802
	Date	2016-08-24	2016-10-06	2016-12-02	2017-02-01	2017-03-29	2017-06-09	2017-07-17	2018-03-16	2018-09-12	2019-03-12	2019-09-24	2020-03-24	2020-09-22	2021-03-25	2021-09-28	2022-03-25
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L			796	645				610	570	590	590	610	590	600	590	580
Aluminum	mg/L					0.071 J	0.22	0.05 U									0.51
Antimony	mg/L	3E-05 J	4E-05 J	2E-05 J	3E-05 J	0.00034 J	0.002 U	0.002 U									0.002 U
Arsenic	mg/L	0.00091	0.00072	0.0012	0.00103	0.00094 J	0.00083 J	0.00089 J									0.002 U
Barium	mg/L	0.0781	0.0711	0.0664	0.069	0.08 B	0.086 B	0.082									0.076
Beryllium	mg/L	5E-06 J	2E-05 U	7E-06 J	6E-06 J	0.001 U	0.00035 J	0.001 U									0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L								610	570		590	610	590	600	590	580
Bicarbonate Alkalinity as HCO3	mg/L										590						
Boron	mg/L	0.172	0.157	0.178	0.242	0.18	0.19	0.27 JB	0.2		0.2	0.21	0.22	0.24	0.22	0.2	0.18 J
Bromide	mg/L			0.499	0.157	2.5 U	2.5 U	2.5 U									
Cadmium	mg/L	2E-05	1E-05 J	0.0001	5E-05	0.001 U	0.001 U	0.001 U									0.0001 U
Calcium	mg/L	29.3	28.7	24.5	28	29 B	31 J	30	30	36	31	26	26	26	27	28	36
Carbonate Alkalinity as CaCO3	mg/L								5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	36.1	35.2	39.1	38	39	38	40	39	35	39	38	41	47	42	42	32
Chromium	mg/L	0.0013	0.0028	0.00206	0.000823	0.00081 J	0.0025	0.0011 J									0.0042 J
Cobalt	mg/L	0.000954	0.00112	0.000847	0.00108	0.0011	0.00048 J	0.00041 J									0.0033
Conductivity, Field	uS/cm	1311	1361	1354	1366				13.31				1265	1284	1292	1275	1338
Copper	mg/L					0.00056 JB	0.0017 JB	0.002 U									0.005 U
Dissolved Oxygen, Field	mg/L	1.81	0.73	2.01	1.68				1.46								1.01
Dissolved Solids, Total	mg/L	766	784	796	810	820 J	830	810 J	810		780	740	780	790	730	780	780 J
Fluoride	mg/L	0.88	0.8	0.8	0.84	0.96	0.99	0.95	1	0.94	0.91	1	1	0.9	1	1.1	0.87
Iron	mg/L					0.18 JB	0.27	0.058 J									0.71
Lead	mg/L	4.4E-05	3.1E-05	4.3E-05	6E-05	0.00026 J	0.001 U	0.001 U									0.0005 U
Lithium	mg/L	0.015	0.018	0.022	0.012	0.014	0.012	0.014									0.014 J
Magnesium	mg/L			6.8	7.8	8.2 B	9	8.6	8.1	9.3	8.8	7.8	7.1	7	7.4	7.8	9.5
Manganese	mg/L					0.48	0.1	0.28									0.088
Mercury	mg/L	5E-06 U	5E-06 U	1.1E-05	5E-06 U	0.0002 U	0.0002 U	0.0002 U									0.0002 U
Molybdenum	mg/L	0.0064	0.00563	0.00543	0.00525	0.0051 J	0.0046 J	0.0048 J									0.0028 J
Nickel	mg/L					0.00079 J	0.0018 J	0.0022									0.0032 J
Oxidation-Reduction Potential, Field	mV																-73.9
pH, Field	pH units	6.94	7.25	7.3	7.19	7.24	7.2	7.11	7.31	7.59	7.51	7.43	7.4	7.32	7.34	7.33	7.31
Potassium	mg/L			1.66	2.05	1.5 B	1.5	1.6	1.5	1.9	1.7	1.6	1.6	1.5	1.5	1.5	1.7
Radium-226	pCi/L	0.443	0.327	0.603	0.245	0.173	0.181	0.188									0.366 U
Radium-226/228	pCi/L	2.763	0.638	0.832	0.506	0.31 U	0.276 U	0.786									1.16
Radium-228	pCi/L	2.32	0.311	0.229	0.261	0.136 U	0.0949 U	0.597									0.797
Redox Potential, Field	mV	14.6	-32.9	9	-49.4												
Selenium	mg/L	5E-05 J	4E-05 J	3E-05 J	5E-05 J	0.005 U	0.005 U	0.0012 J									0.005 U
Silver	mg/L					0.001 U	0.001 U	0.001 U									0.001 U
Sodium	mg/L			253	270	260 JB	270	290 JB	290	260	290	300	280	290	290	280	270
Strontium	mg/L			0.58	0.601	0.62 B	0.55 B	0.65									0.64
Sulfate	mg/L	65.8	57.5	60.2	58.9	70 J	72	71	68	68	73	69	70	73	70	71	57
Temperature, Field	deg C	20.37	18.2	14.3	13.6				16.8				16	17	16	18	17
Thallium	mg/L	5.8E-05	8.4E-05	5.8E-05	5E-05 J	0.001 U	0.001 U	0.001 U									0.001 U
Turbidity, Field	NTU	0.4	2.5	14.4	6.5	6.9	1.6	7.5	2.1	35.3		5	0.8	1	1.3	0.9	41.5
Vanadium	mg/L							0.005 U									
Zinc	mg/L					0.02 U	0.02 U	0.02 U									0.02 U

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

		Location	9802	9802	9802	9802	9802	9802	9802	9802	9806	9806	9806	9806	9806	9806	9806	9806
		Date	2022-09-19	2023-04-04	2023-09-22	2023-09-22	2024-03-14	2024-03-14	2024-09-23	2024-09-23	2016-12-02	2017-02-08	2017-03-27	2017-05-01	2017-06-27	2018-03-20	2018-09-11	2019-03-14
		Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L	580	630		600		600		600	350	346				330	330	390 B
Aluminum	mg/L											2.4 J	2.8	0.057			
Antimony	mg/L		0.002 U		0.002 U		0.002 U		0.002	0.00011	6E-05	0.0003 JB	0.00068 J	0.002 U		0.002 U	0.002 U
Arsenic	mg/L		0.00091 J		0.005 U		0.005 U		0.0009	0.00207	0.00113	0.0011 J	0.0015 J	0.001 J		0.005 U	0.005 U
Barium	mg/L		0.062		0.071		0.08		0.064	0.0676	0.05	0.057 B	0.058	0.041		0.031	0.033
Beryllium	mg/L		0.001 U		0.001 U		0.001 U		0.001	0.000269	0.000122	0.001 U	0.00038 J	0.001 U		0.00061 JF2F1	0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L	580	630		580		600		600						300	310	390 B
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.19	0.2		0.15		0.16		0.22	0.256	25	0.31	0.32	0.35	0.29	0.27	0.23
Bromide	mg/L									0.82	0.65	0.94 J	0.77 J	0.96			0.23 J
Cadmium	mg/L		0.001 U		0.001 U		0.001 U		0.001	0.00037	0.0001	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U
Calcium	mg/L	30	27		32		33		29	5.35	159	4 B	4.2	3.7	3.6	9.6	37
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U		15		5 U		5						22	19	5 U
Chloride	mg/L	37	38		38		37		42	187	191	200	200	200	210	94	38
Chromium	mg/L		0.0015 J		0.005 U		0.0019 J		0.0019	0.00653	0.00291	0.004 B	0.0054	0.002 U		0.002 U	0.0015 J
Cobalt	mg/L		0.0019		0.00072 J		0.00059 J		0.0015	0.00516	0.00231	0.0016	0.0017	0.001 U		0.001 U	0.00046 J
Conductivity, Field	uS/cm	1377	1375	1253		1322		1358		1500	1574				1533		
Copper	mg/L											0.0031 B	0.0066 B	0.002 U			
Dissolved Oxygen, Field	mg/L	0.64	1.55	0.87		1.48		0.55		1.44	1.25				1.78		
Dissolved Solids, Total	mg/L	340	750		740		730		800	860	874	890 J	860 J	870	880	850	1000
Fluoride	mg/L	0.99 U	0.97		1		0.93		1	1.14	1.08	1.4	1.3	1.3	1.3	0.87	0.34
Iron	mg/L											2 JB	2.2	0.058 J			
Lead	mg/L		0.001 U		0.001 U		0.00045 J		0.001	0.00481	0.00227	0.0018 J	0.0028	0.001 U		0.001 U	0.001 U
Lithium	mg/L		0.013		0.013 J		0.012 J		0.014	0.022	0.249	0.013	0.012	0.012		0.036 F2F1	0.045
Magnesium	mg/L	8.8	7.6		9		9.2		7.7	2.21	171	1.4 B	1.5	0.92 J	0.85 J		
Manganese	mg/L											0.034 B	0.03	0.02 B			
Mercury	mg/L	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002	0.000131	6E-06	0.0002 U	0.0002 U	0.0002 U		0.0002 U	0.0002 U
Molybdenum	mg/L		0.005		0.0038 J		0.0043 J		0.0044	0.011	0.0107	0.012	0.011	0.023		0.0061	0.0023 J
Nickel	mg/L											0.0037 B	0.0036	0.002 U			
Oxidation-Reduction Potential, Field	mV	-62	-32.6	58.9		-28.1		-33.4									
pH, Field	pH units	7.33	7.33	7.18		7.08		7.17		8.61	8.49	8.59	8.4	8.4	8.64	8.5	7.74
Potassium	mg/L	1.5	1.3		1.4		1.4		1.5	2.09	18.4	1.6 B	1.7	0.84 J	0.96 J		
Radium-226	pCi/L	0.124	0.151 U		0.0176 U		0.576		0.18	0.658	0.221	0.154	0.149	0.199		0.151	0.0571 U
Radium-226/228	pCi/L	0.622	0.176 U		0.825		1.49 J		1.26	0.7334	0.711	0.378	0.235 U	0.353		0.257 U	0.0148 U
Radium-228	pCi/L	0.498 U	0.0256 U		0.808		0.915 J		1.08	0.0754	0.49	0.224 U	0.0855 U	0.154 U		0.106 U	-0.0422 U
Redox Potential, Field	mV									-14.2	69.1						
Selenium	mg/L		0.005 U		0.005 U		0.005 U		0.005	0.0007	0.0003	0.005 U	0.0011 J	0.005 U		0.0015 J	0.00098 J
Silver	mg/L											0.00084 J	0.0012	0.001 U			
Sodium	mg/L	270	260		280		250		290	277	213	320 JB	350 B	350	320		
Strontium	mg/L									0.166	1.28	0.15 B	0.16 B	0.13			
Sulfate	mg/L	64	70		66		64		69	116	113	130 J	130	130	130	240	450
Temperature, Field	deg C	18.7	18.4	18.5		18.1		21.4		11	12.4				11.8		
Thallium	mg/L		0.00048 J		0.001 U		0.00055 J		0.001	7E-05	4E-05 J	0.001 U	0.001 U	0.001 U		0.001 U	0.001 U
Turbidity, Field	NTU	2.67	4.5	2.65		21.43		5.84		301.9	74.3	110.6	40.6	53.8	13	4.33	
Vanadium	mg/L																
Zinc	mg/L											0.0093 J	0.02 U	0.02 U			

Notes:
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N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9806	9910	9910
	Date	2019-09-26	2020-03-25	2020-09-17	2021-03-20	2021-09-27	2022-03-24	2022-09-20	2023-04-05	2023-09-26	2023-09-26	2024-03-14	2024-03-14	2024-09-25	2024-09-25	2016-10-03	2018-09-25
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	320	370	350	340	330	290	330	330		340		330		330		830
Aluminum	mg/L						0.021 J										
Antimony	mg/L						0.002 U		0.002 U		0.002 U		0.002 U		0.002		
Arsenic	mg/L						0.002 U		0.0016 J		0.005 U		0.005 U		0.005		
Barium	mg/L						0.02		0.058		0.042		0.043		0.04		
Beryllium	mg/L						0.001 U		0.001 U		0.001 U		0.001 U		0.001		
Bicarbonate Alkalinity as CaCO3	mg/L	300	370	340	320	300	290	290	300		310		330		310		830
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.3	0.22	0.21	0.29	0.25	0.25	0.29	0.28		0.29		0.25		0.32		0.52
Bromide	mg/L																
Cadmium	mg/L						0.0001 U		0.001 U		0.001 U		0.001 U		0.001		
Calcium	mg/L	4.1	31	37	7.2	8.9	26	3	7.7		3.7		21		3.8		12
Carbonate Alkalinity as CaCO3	mg/L	26	5 U	7.3	17	25	5 U	37	29		31		5 U		24		5 U
Chloride	mg/L	190	53	51	180	160	79	200	150		220		81		210		840
Chromium	mg/L						0.005 U		0.0063		0.0025 J		0.005 U		0.0015		
Cobalt	mg/L						0.0005 U		0.002		0.00053 J		0.001 U		0.00021		
Conductivity, Field	uS/cm		1666	1691	1464	1497	1709	1554	1651	1642		1579		1601		4918	
Copper	mg/L						0.005 U										
Dissolved Oxygen, Field	mg/L						8.85	2.65	6	5.73		7.14		5.59		1.58	
Dissolved Solids, Total	mg/L	1900	930	1100	890	950	980	750	880		890		860		870		2400
Fluoride	mg/L	1.4	0.44	0.39	1.3	1	0.59	1.4 U	1.1		1.2		0.64		1.3		2
Iron	mg/L						0.1 U										
Lead	mg/L						0.0005 U		0.0021		0.0022		0.001 U		0.001		
Lithium	mg/L						0.049		0.018		0.011		0.039		0.012		
Magnesium	mg/L	1.5	13	16	2.2	3.9	12	0.8 J	2.5		0.92 J		6.8		0.93		4
Manganese	mg/L						0.0077 J										
Mercury	mg/L						0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U		0.0002		
Molybdenum	mg/L						0.0038		0.011		0.011		0.0061		0.011		
Nickel	mg/L						0.005 U										
Oxidation-Reduction Potential, Field	mV						126.9	100.8	174.2	55.4		127		25.1			
pH, Field	pH units	8.73	7.86	8.2	8.47	8.59	7.95	8.56	8.36	8.7		8.01		8.51		7.58	7.64
Potassium	mg/L	1.1	2.9	3.2	1.4	1.7	3	0.75 J	1.5		0.99 J		2		0.89		2.9
Radium-226	pCi/L						0.0498 U	0.127	0.188 U		0.0897 U		0.217		0.128 U		
Radium-226/228	pCi/L						0.97	0.382 U	0.842		1.42		0.916 J		1.05		
Radium-228	pCi/L						0.92	0.255 U	0.654 U		1.33		0.699 J		0.92 U		
Redox Potential, Field	mV															208.7	
Selenium	mg/L						0.0012 J		0.005 U		0.005 U		0.0011 J		0.005		
Silver	mg/L						0.001 U										
Sodium	mg/L	320	310	350	290	330	360	290	320		340		300		340		1100
Strontium	mg/L						1.2										
Sulfate	mg/L	130	510	490	140	230	450	130	240		120		490		130		110
Temperature, Field	deg C		13	14	13	13	13	14.9	17.7	15.6		14.6		17.5		16.7	
Thallium	mg/L						0.001 U		0.001 U		0.001 U		0.001 U		0.001		
Turbidity, Field	NTU	32	2.3	0.8	23.3	5.3	2.1	7.33	16.32	11.53		3.45		7.19		184.3	46.5
Vanadium	mg/L																
Zinc	mg/L						0.12										

Notes:
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N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
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B: Compound was found in the blank and sample.
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Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910	9910
	Date	2019-03-26	2019-09-22	2020-03-15	2020-09-17	2021-03-17	2021-09-24	2022-07-14	2022-09-14	2022-12-05	2022-12-06	2023-02-24	2023-08-16	2023-08-16	2023-09-14	2023-09-14	2024-02-21
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	860	850	870	840	870	870	820			810	790				830	
Aluminum	mg/L																
Antimony	mg/L							0.002 U				0.00082 J		0.002 U			
Arsenic	mg/L							0.0021 J				0.0052		0.003 J			
Barium	mg/L							0.26				0.24		0.25			
Beryllium	mg/L							0.001 U				0.001 U		0.001 U			
Bicarbonate Alkalinity as CaCO3	mg/L	840	840	850	840	870	850	820			800	790				800	
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.52	0.49	0.51	0.51	0.55	0.52					0.52		0.51			
Bromide	mg/L																
Cadmium	mg/L							0.001 U				0.00023 J		0.001 U			
Calcium	mg/L	13	13	11	14	13	15							13			
Carbonate Alkalinity as CaCO3	mg/L	23	6.9	19	5 U	5 U	15	5 U			5 U	5 U				25	
Chloride	mg/L	880	800	850	850	810	870		1100							1100	
Chromium	mg/L							0.034				0.017		0.009			
Cobalt	mg/L							0.00058 J				0.0011		0.00058 J			
Conductivity, Field	uS/cm			4626	4577	4584	4732	51788	5195	5563		5312	5380		5617		5326
Copper	mg/L																
Dissolved Oxygen, Field	mg/L							1.87	9.33	9.63		10.94	8.95		8.96		9.87
Dissolved Solids, Total	mg/L	2900	2700	2900	2300	2500	2400		2500							3000	
Fluoride	mg/L	1.9	2	2	2	1.9	1.9	1.8 J	1.9							1.3	
Iron	mg/L																
Lead	mg/L							0.00048 J				0.0014		0.00067 J			
Lithium	mg/L							0.025				0.034		0.037 J			
Magnesium	mg/L	4.2	4.3	3.9	4.3	4.3	4.7	4.3				4.6		4.2			
Manganese	mg/L																
Mercury	mg/L					0.0002 U		0.0002 U				0.0002 U		0.0002 U			
Molybdenum	mg/L							0.017				0.015		0.015			
Nickel	mg/L																
Oxidation-Reduction Potential, Field	mV							27.1	78.9	90.8		72.4	72		237.2		145.3
pH, Field	pH units	7.76	7.8	7.88	7.8	7.69	7.67	7.55	7.81	7.96		7.93	7.88		9		8.07
Potassium	mg/L	3.2	3	3	3	3	2.9	2.9				3.1		2.9			
Radium-226	pCi/L							0.289									
Radium-226/228	pCi/L							0.842 J									
Radium-228	pCi/L							0.553 U									
Redox Potential, Field	mV																
Selenium	mg/L							0.0064				0.011		0.015			
Silver	mg/L																
Sodium	mg/L	1100	1000	980	980	1000	1100	1100				1100		1200			
Strontium	mg/L																
Sulfate	mg/L	120	100	110	94	92	96		120							120	
Temperature, Field	deg C			13	14	14	16	15.5	17.9	12.7		12.7	20.1		24.7		16.8
Thallium	mg/L							0.001 U				0.00066 J		0.001 U			
Turbidity, Field	NTU		69	85.3	26	43.6	11.7	18.09	5.9	10.39		97.22	17.09		45.92		4.05
Vanadium	mg/L																
Zinc	mg/L																

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	9910	9910	9910	MW-16	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17
	Date	2024-02-21	2024-06-26	2024-06-26	2022-05-05	2020-09-11	2021-03-20	2021-09-19	2022-03-24	2022-05-05	2022-05-05	2022-07-18	2022-08-17	2022-09-19	2022-11-07	2022-11-07	2022-12-08
	Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	FD
Analyte	Unit																	
Alkalinity, Total as CaCO3	mg/L					270	300	270	270	250	260	220	240	230	220	220	210
Aluminum	mg/L								0.033 J								
Antimony	mg/L	0.002 U		0.00078 J					0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U
Arsenic	mg/L	0.0029 J		0.0038 J					0.027	0.018	0.017	0.0052	0.0028 J		0.0022 J		0.0019 J
Barium	mg/L	0.23		0.23					1.7	2.4	2.2	1.9	2.2		2.3		2
Beryllium	mg/L	0.001 U		0.001 U					0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U
Bicarbonate Alkalinity as CaCO3	mg/L					270	300	270	270	250	260	220	240	230	220	220	210
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.51				0.39	0.41	0.44	0.62 J	0.42	0.4	0.32	0.4	0.45		0.37	
Bromide	mg/L																
Cadmium	mg/L	0.001 U		0.001 U					0.0001 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U
Calcium	mg/L	13		14		94	87	96	120	83	78	72	91	78		83	
Carbonate Alkalinity as CaCO3	mg/L					5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	1100				4500	4200	4500	4000	4200	4200	4500	4500	4200		4700	
Chromium	mg/L	0.0018 J		0.0028 J					0.005 U	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U
Cobalt	mg/L	0.001 U		0.001 U					0.0005 U	0.001 U	0.001 U	0.001 U	0.00058 J		0.00033 J		0.00024 J
Conductivity, Field	uS/cm		5757		4945	12829	12407	12893	13574	12056	12056	13140	13350	13344	12925		12226
Copper	mg/L								0.005 U								
Dissolved Oxygen, Field	mg/L		8.25		1.13				0.2	0.59	0.59	0.41	0.39	0.74	0.38		0.41
Dissolved Solids, Total	mg/L					7500	7200	7900	6900	6500	5800	4700	6700	5700		6800	
Fluoride	mg/L	1.6				1.4	1.6	1.7	2.2	1.6	1.7	1.7	1.5	1.7 J	1.7	1.7	1.8
Iron	mg/L								3.4								
Lead	mg/L	0.001 U		0.001 U					0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U
Lithium	mg/L	0.029		0.031					0.088	0.08	0.075	0.063	0.079		0.076		0.069
Magnesium	mg/L	4.1		4.1		18	18	18	21	18	18	15	16	15	16	16	15
Manganese	mg/L								0.4								
Mercury	mg/L	0.0002 U		0.0002 U					0.00021 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U
Molybdenum	mg/L	0.014		0.015					0.01	0.0091	0.0071	0.006	0.02		0.013 B		0.013
Nickel	mg/L								0.0027 J								
Oxidation-Reduction Potential, Field	mV		39		36				-276.6	-351.1	-351.1	-197.5	-138.7	-129.9	-130.2		-131.5
pH, Field	pH units		8.1		7.58	7.29	7.27	7.39	7.29	7.36	7.36	7.3	7.07	7.06	7.06		7.11
Potassium	mg/L	2.7		2.6		5.3	5.2	5.5	7.4	5.5	5.2	4.7	5.3	5	5.5	5.2	5.3
Radium-226	pCi/L				0.37 U				2.17	2.18	2.2	2.55	2.73	2.79	2.92		2.78
Radium-226/228	pCi/L				1.04 U				5.34	4.91	5.08	5.8	6.7	6.59 J	6.79		6.44
Radium-228	pCi/L				0.674 U				3.17	2.73	2.88	3.25	3.97	3.79 J	3.87		3.66
Redox Potential, Field	mV																
Selenium	mg/L	0.015		0.017					0.0013 J	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.005 U
Silver	mg/L								0.001 U								
Sodium	mg/L	1200		1200		2400	2500	2600	2700	2700	2500	2900	2600	2700	2600	2700	2400
Strontium	mg/L								7.3								
Sulfate	mg/L	120				19	43	47	110	48	60	50 U	28	17		14	
Temperature, Field	deg C		27.8		14.5	14	14	15	14	14.2	14.2	15.8	16.2	15.8	15.6		13.9
Thallium	mg/L	0.001 U		0.001 U					0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J		0.001 U		0.001 U
Turbidity, Field	NTU		6.63		55.7	1.2	2.7	0	149.3	0.78	0.78	50.86	9.71	8.53	9.98		8.44
Vanadium	mg/L																
Zinc	mg/L								0.011 J								

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-20	MW-20	MW-20	MW-20	MW-20
	Date	2022-12-08	2023-02-23	2023-04-04	2023-04-14	2023-09-19	2023-09-19	2024-03-12	2024-03-12	2024-09-19	2024-09-19	2024-09-19	2016-08-23	2016-10-05	2016-12-01	2017-04-25	2017-06-06
	Sample Type	N	N	N	N	N	N	N	N	FD	N	N	N	N	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L	210	240	260	250		420		540	1100		1100			259		
Aluminum	mg/L															0.05 U	0.043 J
Antimony	mg/L	0.002 U	0.002 U	0.002 U	0.002 U		0.002 U		0.002 U	0.00071		0.002	4E-05 J	0.0002 U	0.0001 U	0.002 U	0.002 U
Arsenic	mg/L	0.0021 J	0.012	0.0082	0.0094		0.014		0.027	0.027		0.025	0.00938	0.01	0.00917	0.0048 J	0.0086
Barium	mg/L	2	2	2	2.1		0.61		0.39	0.2		0.23	0.0274	0.0228	0.0233	0.025	0.027
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.0004		0.00031	0.000234	0.000265	0.000276	0.00032 J	0.00055 J
Bicarbonate Alkalinity as CaCO3	mg/L	210	240	260	250		420		540	1100		1100					
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L			0.41			0.48		0.73	0.91		0.88	0.126	0.272	0.104	0.15 J	0.19 B
Bromide	mg/L														0.422	5 U	0.5 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.00023		0.00011	8E-05	2E-05 J	4E-05 U	0.001 U	0.001 U
Calcium	mg/L			66			100		190	330		300	495	483	465	500	500
Carbonate Alkalinity as CaCO3	mg/L	5 U	5 U	5 U	5 U		5 U		5 U	5		5					
Chloride	mg/L			4400			4000		5200	7000		7400	60.1	25.2	16.4	11	6.5
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.0015 J		0.005 U		0.0015 J	0.005		0.005	0.0028	0.0018	0.00121	0.002 U	0.0018 J
Cobalt	mg/L	0.0002 J	0.001 U	0.001 U	0.00025 J		0.00047 J		0.00044 J	0.0015		0.0013	0.128	0.134	0.143	0.13	0.13
Conductivity, Field	uS/cm	12226	12619	12157		10941		14260			20303		2819	3042	2935		
Copper	mg/L															0.002 U	0.002 U
Dissolved Oxygen, Field	mg/L	0.41	0.09	0.37		0.71		1.35			0.41		2.93	1.5	4.67		
Dissolved Solids, Total	mg/L			5800			6500		9600	9500		9600	2660	2710	2620	2500 J	2600
Fluoride	mg/L	1.8	0.76 J	1.7	1.7		1.3		1.1	5		5	0.95	1	1	1.2	0.93
Iron	mg/L															27	32
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U		0.001 U		0.001 U	0.001		0.001	0.000201	0.00013	3E-05 J	0.001 U	0.001 U
Lithium	mg/L	0.067	0.074	0.073	0.076		0.087		0.12	0.17		0.16	0.174	0.171	0.188	0.16	0.16
Magnesium	mg/L	14	15	14	14		22		50	90		84			106	100	100
Manganese	mg/L															15	15
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U		0.0002 U		0.0002 U	0.0002		0.0002	5E-06 U	5E-06 U	5E-06 U	0.0002 U	0.0002 U
Molybdenum	mg/L	0.013	0.0042 J	0.0032 J	0.006		0.025		0.0096	0.011		0.011	0.0089	0.00543	0.00249	0.0016 J	0.002 J
Nickel	mg/L															0.1	0.11
Oxidation-Reduction Potential, Field	mV	-131.5	-173.7	-143.8		-137.1		-184.1			-157.3						
pH, Field	pH units	7.11	7.29	7.2		7.25		7.26			6.8		6.88	6.52	6.5	6.51	6.52
Potassium	mg/L	5	5.1	4.9	5.1		5.5		6.8	9.1		8.9			9.01	7.8	7.8
Radium-226	pCi/L	2.65	2.82	2.66	2.49		0.838		0.849	0.562		0.418	0.31	0.344	0.322	0.181	0.192
Radium-226/228	pCi/L	5.93	5.73	5.67	5.15		1.64 J		1.57 J	1.19		0.61 U	0.684	1.494	0.866	0.594	0.425
Radium-228	pCi/L	3.28	2.91	3.01	2.66		0.799 J		0.723 J	0.632 U		0.192 U	0.374	1.15	0.544	0.413	0.234 U
Redox Potential, Field	mV												-41	-55.5	-47.5		
Selenium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U		0.005 U		0.00093 J	0.0065		0.0059	0.0001 J	0.0002 J	0.0001 J	0.005 U	0.005 U
Silver	mg/L															0.001 U	0.001 U
Sodium	mg/L	2500	2400	2400	2300		2600		3300	4400		4500			64.6	52	51 B
Strontium	mg/L														3.08	3.6	3.3 B
Sulfate	mg/L			13			390		1700	2700		2800	1610	1810	1610	2200	1700
Temperature, Field	deg C	13.9	15.2	14.9		15.6		16			20.1		16.53	15.4	12.1		
Thallium	mg/L	0.001 U	0.00036 J	0.001 U	0.001 U		0.001 U		0.001 U	0.001		0.001	0.000598	0.00033	9E-05 J	0.001 U	0.001 U
Turbidity, Field	NTU	8.44	11.65	8.18		9.83		35.12			8.28		42.4	9.6	9.2	6.1	1.4
Vanadium	mg/L																
Zinc	mg/L															0.02 U	0.02

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

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Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
	Date	2017-07-14	2018-03-26	2019-09-19	2020-03-15	2020-03-24	2020-09-15	2021-03-19	2021-09-20	2022-03-30	2022-05-03	2022-07-14	2022-08-16	2022-09-13	2022-09-13	2022-10-18	2022-10-25
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N	FD	N	N	N
Analyte	Unit																
Alkalinity, Total as CaCO3	mg/L			150	170	170	160	160	170	160	160	160	150	160	160	160	170
Aluminum	mg/L	0.15								0.05 U							
Antimony	mg/L	0.002 U								0.002 U	0.002 U	0.002 U	0.002 U			0.002 U	
Arsenic	mg/L	0.013								0.0018 J	0.005 U	0.0017 J	0.00076 J			0.005 U	
Barium	mg/L	0.029								0.017	0.018	0.016	0.016			0.014	
Beryllium	mg/L	0.00088 J								0.001 U	0.001 U	0.001 U	0.001 U			0.001 U	
Bicarbonate Alkalinity as CaCO3	mg/L			150	170	170	160	160	170	160	160	160	150	160	160	160	170
Bicarbonate Alkalinity as HCO3	mg/L																
Boron	mg/L	0.15		0.12	0.19 U	0.16	0.1	0.23	0.099 J	0.2 U				0.12	0.12		
Bromide	mg/L	5 U															
Cadmium	mg/L	0.001 U								0.0001 U	0.001 U	0.00022 J	0.00037 J			0.001 U	
Calcium	mg/L	500		470	470	470	450	420	440	510				450	440		
Carbonate Alkalinity as CaCO3	mg/L			5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloride	mg/L	8.2 J		1.9	2	2.1	1.8	1.8	1.8	1.8				1.8 J	1.8 J		1.8
Chromium	mg/L	0.0025								0.005 U	0.005 U	0.005 U	0.005 U			0.005 U	
Cobalt	mg/L	0.14								0.19	0.2	0.15	0.21			0.19	
Conductivity, Field	uS/cm		2817		2523	2455	2402	2428	2360	2581	2264	2458	2469	2437	2437	2406	2311
Copper	mg/L	0.002 U								0.005 U							
Dissolved Oxygen, Field	mg/L		1.76							6.78	3.09	1.83	0.42	0.61	0.61	1.2	0.72
Dissolved Solids, Total	mg/L	2600 J		2600	2500 J	2100	2100	2300	2100	2100				2100 J	2000 J		2100
Fluoride	mg/L	0.9		1.3	1.3	1.2	1.3	1.3	1.4	1.5	1.6	1.4 J	1.5	1.4	1.4	1.4	1.4
Iron	mg/L	37								10							
Lead	mg/L	0.00089 J								0.0005 U	0.001 U	0.001 U	0.001 U			0.001 U	
Lithium	mg/L	0.16								0.18	0.21	0.15	0.18			0.17	
Magnesium	mg/L	110		110	110	110	100	94	100	100	100	89	110	100	100	93	
Manganese	mg/L	16								16							
Mercury	mg/L	0.0002 U								0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Molybdenum	mg/L	0.0027 J								0.002 U	0.005 U	0.005 U	0.005 U			0.005 U	
Nickel	mg/L	0.12								0.16							
Oxidation-Reduction Potential, Field	mV									179.5	80.2	110.2	154.9	111.9	111.9	193.4	180.4
pH, Field	pH units	6.51	6.56	6.35	6.4	6.81	6.36	6.38	6.37	6.18	6.19	6.14	6.28	6.12	6.12	6.05	6.22
Potassium	mg/L	8		6.4	6.4	6.4	5.6	5.3	5.4	5.9 J	5.7	4.5	5.5	5.4	5.3	5	
Radium-226	pCi/L	0.327								0.00138 U	0.0886 U	0.147 U	0.108	0.0656 U	0.0352 U	0.202	
Radium-226/228	pCi/L	0.73								0.618 U	0.23 U	0.852	0.383 U	0.538	0.442	-0.119 U	
Radium-228	pCi/L	0.404								0.617 U	0.142 U	0.705 J	0.275 U	0.472	0.406	-0.321 U	
Redox Potential, Field	mV																
Selenium	mg/L	0.0015 J								0.0013 J	0.0017 J	0.005 U	0.0023 J			0.005 U	
Silver	mg/L	0.001 U								0.0026							
Sodium	mg/L	53 B		26	28	28	27	25	24	24	22	20	25	23	23	21	
Strontium	mg/L	3.2 B								2.4							
Sulfate	mg/L	1600		1700	1800	1700	1500	1500	1600	1500				1700	1700		1600
Temperature, Field	deg C		12.4		12	13	14	13	14	12	13	15.3	14.5	15.7	15.7	13	14.2
Thallium	mg/L	0.001 U								0.00028 J	0.001 U	0.001 U	0.0015 J			0.001 U	
Turbidity, Field	NTU	4.8	1	67	456	248	123	75.1	173	65.7	91.1	145.47	40.59	19.97	19.97	10.21	29.27
Vanadium	mg/L																
Zinc	mg/L	0.038								0.15							

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

Appendix E
Analytical Data Summary
Fly Ash Reservoir & Residual Waste Landfill
Gavin Power Plant

	Location	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
	Date	2023-03-27	2023-09-14	2023-09-14	2024-03-08	2024-03-08	2024-09-30	2024-09-30
	Sample Type	N	N	N	N	N	N	N
Analyte	Unit							
Alkalinity, Total as CaCO3	mg/L	170		170		170		160
Aluminum	mg/L							
Antimony	mg/L	0.002 U		0.002 U		0.002 U		0.002
Arsenic	mg/L	0.005 U		0.005 U		0.0014 J		0.005
Barium	mg/L	0.018		0.017		0.019		0.016
Beryllium	mg/L	0.001 U		0.001 U		0.001 U		0.001
Bicarbonate Alkalinity as CaCO3	mg/L	170		170		170		160
Bicarbonate Alkalinity as HCO3	mg/L							
Boron	mg/L	0.19		0.13		0.13		0.16
Bromide	mg/L							
Cadmium	mg/L	0.001 U		0.001 U		0.001 U		0.001
Calcium	mg/L	470		480		480		450
Carbonate Alkalinity as CaCO3	mg/L	5 U		5 U		5 U		5
Chloride	mg/L	1.7		1.5		1.5		1.7
Chromium	mg/L	0.005 U		0.005 U		0.005 U		0.005
Cobalt	mg/L	0.19		0.21		0.19		0.21
Conductivity, Field	uS/cm	2539	1947		2522		2551	
Copper	mg/L							
Dissolved Oxygen, Field	mg/L	1.08	1.07		1.81		0.5	
Dissolved Solids, Total	mg/L	2200		2300		2100		2300
Fluoride	mg/L	1.4		1.3		1.5		1.4
Iron	mg/L							
Lead	mg/L	0.001 U		0.001 U		0.001 U		0.001
Lithium	mg/L	0.19		0.18		0.18		0.18
Magnesium	mg/L	100		110		110		94
Manganese	mg/L							
Mercury	mg/L	0.0002 U		0.0002 U		0.0002 U		0.0002
Molybdenum	mg/L	0.005 U		0.005 U		0.005 U		0.005
Nickel	mg/L							
Oxidation-Reduction Potential, Field	mV	-33.5	6.9		5.4		-69.5	
pH, Field	pH units	6.64	6		6.21		6.3	
Potassium	mg/L	5.5		5.5		5.5		4.7
Radium-226	pCi/L	0.0987 U		0.139		0.0931 U		0.136
Radium-226/228	pCi/L	0.595		0.578		0.239 U		0.483 U
Radium-228	pCi/L	0.496 U		0.44 U		0.146 U		0.347 U
Redox Potential, Field	mV							
Selenium	mg/L	0.001 J		0.005 U		0.005 U		0.005
Silver	mg/L							
Sodium	mg/L	24		24		25		20
Strontium	mg/L							
Sulfate	mg/L	1500		1700		1500		1600
Temperature, Field	deg C	12.8	13.9		12.7		16.5	
Thallium	mg/L	0.00054 J		0.001 U		0.001 U		0.001
Turbidity, Field	NTU	13.58	19.71		66.18		9.17	
Vanadium	mg/L							
Zinc	mg/L							

Notes:
FD = Field duplicate sample
N = Normal environmental sample
deg C = Degree Celcius
mg/L = Milligrams per liter
mV = Milivolts
NTU = Nephelometric Turbidity Unit
uS/cm = Microsiemens per centimeter
pCi/L = Picocuries per liter
B: Compound was found in the blank and sample.
J: Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

U: Indicates the analyte was analyzed for but not detected.
Empty cells = Not analyzed

APPENDIX F LABORATORY REPORTS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Federal CCR Wells - AppIII & IV Combined

JOB NUMBER

240-199891-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-199891-1 Eurofins Cleveland

Job Narrative
240-199891-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 2/23/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2019-06-F-A34C-20240222-01 (240-199891-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-199891-1	2019-06-F-A34C-20240222-01	Water	02/22/24 09:30	02/23/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Client Sample ID: 2019-06-F-A34C-20240222-01
Lab Sample ID: 240-199891-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	280		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.69	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	560		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	310000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	16		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.5		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	220		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	98000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	34		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	17000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	5900000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	110		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	110		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	11000		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.48	J	0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	390		20	7.0	mg/L	20		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Client Sample ID: 2019-06-F-A34C-20240222-01
Lab Sample ID: 240-199891-1
Date Collected: 02/22/24 09:30
Matrix: Water
Date Received: 02/23/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	280		100	57	ug/L		02/26/24 14:00	03/01/24 17:28	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.69	J	2.0	0.57	ug/L		02/26/24 14:00	02/27/24 16:40	1
Arsenic	2.6	J	5.0	0.75	ug/L		02/26/24 14:00	02/27/24 16:40	1
Barium	560		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 16:40	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 16:40	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 16:40	1
Calcium	310000		1000	250	ug/L		02/26/24 14:00	02/27/24 16:40	1
Chromium	16		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 16:40	1
Cobalt	2.8		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 16:40	1
Lead	1.5		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 16:40	1
Lithium	220		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 16:40	1
Magnesium	98000		1000	61	ug/L		02/26/24 14:00	02/27/24 16:40	1
Molybdenum	34		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 16:40	1
Potassium	17000		1000	220	ug/L		02/26/24 14:00	02/27/24 16:40	1
Selenium	1.2	J	5.0	0.89	ug/L		02/26/24 14:00	02/27/24 16:40	1
Sodium	5900000		10000	3300	ug/L		02/26/24 14:00	02/29/24 14:02	10
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 16:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	110		5.0	2.6	mg/L			02/29/24 23:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	110		5.0	2.6	mg/L			02/29/24 23:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			02/29/24 23:51	1
Chloride (EPA 300.0)	11000		100	13	mg/L			03/03/24 16:14	100
Fluoride (EPA 300.0)	0.48	J	0.50	0.24	mg/L			03/03/24 15:53	10
Sulfate (EPA 300.0)	390		20	7.0	mg/L			03/05/24 14:50	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604825

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		02/26/24 14:00	03/01/24 15:53	1

Lab Sample ID: LCS 240-604200/2-A
Matrix: Water
Analysis Batch: 604825

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 15:42	1
Arsenic	ND		5.0	0.75	ug/L		02/26/24 14:00	02/27/24 15:42	1
Barium	ND		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 15:42	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 15:42	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:42	1
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 15:42	1
Chromium	ND		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 15:42	1
Cobalt	ND		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 15:42	1
Lead	ND		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 15:42	1
Lithium	ND		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 15:42	1
Magnesium	ND		1000	61	ug/L		02/26/24 14:00	02/27/24 15:42	1
Molybdenum	ND		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 15:42	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 15:42	1
Selenium	ND		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 15:42	1
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:42	1

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		02/26/24 14:00	02/29/24 13:37	1

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	94.5		ug/L		94	80 - 120
Arsenic	1000	903		ug/L		90	80 - 120
Barium	1000	926		ug/L		93	80 - 120
Beryllium	500	427		ug/L		85	80 - 120
Cadmium	500	472		ug/L		94	80 - 120
Calcium	25000	23000		ug/L		92	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	500	470		ug/L		94	80 - 120
Cobalt	500	461		ug/L		92	80 - 120
Lead	500	470		ug/L		94	80 - 120
Lithium	500	495		ug/L		99	80 - 120
Magnesium	25000	24000		ug/L		96	80 - 120
Molybdenum	500	460		ug/L		92	80 - 120
Potassium	25000	24100		ug/L		96	80 - 120
Selenium	1000	892		ug/L		89	80 - 120
Thallium	1000	915		ug/L		91	80 - 120

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	23000		ug/L		92	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-604203/1-A
Matrix: Water
Analysis Batch: 604334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:05	1

Lab Sample ID: LCS 240-604203/2-A
Matrix: Water
Analysis Batch: 604334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.01		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-604707/30
Matrix: Water
Analysis Batch: 604707

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			02/29/24 22:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			02/29/24 22:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			02/29/24 22:32	1

Lab Sample ID: MB 240-604707/4
Matrix: Water
Analysis Batch: 604707

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			02/29/24 20:08	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-604707/4
Matrix: Water
Analysis Batch: 604707

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			02/29/24 20:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			02/29/24 20:08	1

Lab Sample ID: LCS 240-604707/29
Matrix: Water
Analysis Batch: 604707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.2		mg/L		105	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-604774/3
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/03/24 07:50	1
Fluoride	ND		0.050	0.024	mg/L			03/03/24 07:50	1

Lab Sample ID: LCS 240-604774/4
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.6		mg/L		103	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110

Lab Sample ID: MB 240-604990/3
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/05/24 12:09	1
Sulfate	ND		1.0	0.35	mg/L			03/05/24 12:09	1

Lab Sample ID: LCS 240-604990/4
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.50		mg/L		100	90 - 110
Sulfate	50.0	52.2		mg/L		104	90 - 110

Metals

Prep Batch: 604200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total Recoverable	Water	3005A	
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-604200/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 604203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total/NA	Water	7470A	
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 604334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total/NA	Water	7470A	604203
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	604203
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	604203

Analysis Batch: 604389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total Recoverable	Water	6020B	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6020B	604200
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	6020B	604200

Analysis Batch: 604611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total Recoverable	Water	6020B	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6020B	604200
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	6020B	604200

Analysis Batch: 604825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total Recoverable	Water	6010D	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6010D	604200
LCS 240-604200/2-A	Lab Control Sample	Total Recoverable	Water	6010D	604200

General Chemistry

Analysis Batch: 604707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total/NA	Water	2320B-1997	
MB 240-604707/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-604707/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-604707/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 604774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total/NA	Water	300.0	
240-199891-1	2019-06-F-A34C-20240222-01	Total/NA	Water	300.0	
MB 240-604774/3	Method Blank	Total/NA	Water	300.0	
LCS 240-604774/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

General Chemistry

Analysis Batch: 604990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199891-1	2019-06-F-A34C-20240222-01	Total/NA	Water	300.0	
MB 240-604990/3	Method Blank	Total/NA	Water	300.0	
LCS 240-604990/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Client Sample ID: 2019-06-F-A34C-20240222-01
Lab Sample ID: 240-199891-1
Date Collected: 02/22/24 09:30
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6010D		1	604825	AJC	EET CLE	03/01/24 17:28
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 16:40
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		10	604611	RKT	EET CLE	02/29/24 14:02
Total/NA	Prep	7470A			604203	BN	EET CLE	02/26/24 14:00
Total/NA	Analysis	7470A		1	604334	TQ6W	EET CLE	02/27/24 11:09
Total/NA	Analysis	2320B-1997		1	604707	QUY8	EET CLE	02/29/24 23:51
Total/NA	Analysis	300.0		10	604774	JWW	EET CLE	03/03/24 15:53
Total/NA	Analysis	300.0		100	604774	JWW	EET CLE	03/03/24 16:14
Total/NA	Analysis	300.0		20	604990	JWW	EET CLE	03/05/24 14:50

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199891-1
Project/Site: Federal CCR Wells - AppIII & IV Combined

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

1.7 | 1.7

Chain of Custody Record

Columbus 209 eurofins Environment Testing America

Client Information	Sampler: Bobby Cafe	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-97179-35520.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR - Appendix III and IV - Combined	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	300.0_28D - Fluoride (AppIV)/Cl, F, SO4 (AppIV)	2320B - Alkalinity	9315_Ra226, 9320_Ra228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2019-06-F-A34C-20240227-01	2-22-24	0930	G	W	N		1	1	1			Limited Volume Collected

240-199891 Chain of Custody

BC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Cafe	2-22-24 / 1105	KEMRON	Ashley Deal	2/22/24 2:15	ETA
Relinquished by: Ashley Deal	Date/Time: 2/22/24 1700	Company ETA	Received by:	Date/Time: 2-23-24 800	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °rc and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: [signature]

Cooler Received on 2-23-24 Opened on 2-23-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp. 1.7 °C Corrected Cooler Temp 1.7 °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
	Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Yes) No
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12.	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC316719
14.	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen. _____

2/23/2024

Login Container Summary Report

240-199891

3/6/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2019-06-F-A34C-20240222-01	240-199891-C-1	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 3/4/2024 10:18:27 PM

JOB DESCRIPTION

Federal CCR Wells - App IV - Snap Sampler

JOB NUMBER

240-199892-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-199892-1 Eurofins Cleveland

Job Narrative
240-199892-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 2/23/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-199892-1	2018-03-F-A4-20240222-01	Water	02/22/24 10:00	02/23/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Client Sample ID: 2018-03-F-A4-20240222-01
Lab Sample ID: 240-199892-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.68	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	12		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	320		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	22000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	14		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	5.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	35		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	6500		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	6.5		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		5000	1600	ug/L	5		6020B	Total Recoverable
Fluoride	0.50		0.10	0.048	mg/L	2		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Client Sample ID: 2018-03-F-A4-20240222-01
Lab Sample ID: 240-199892-1
Date Collected: 02/22/24 10:00
Matrix: Water
Date Received: 02/23/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.68	J	2.0	0.57	ug/L		02/26/24 14:00	02/27/24 11:39	1
Arsenic	12		5.0	0.75	ug/L		02/26/24 14:00	02/27/24 11:39	1
Barium	320		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 11:39	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 11:39	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:39	1
Calcium	22000		1000	250	ug/L		02/26/24 14:00	02/27/24 11:39	1
Chromium	14		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 11:39	1
Cobalt	4.9		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 11:39	1
Lead	5.0		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 11:39	1
Lithium	35		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 11:39	1
Magnesium	6500		1000	61	ug/L		02/26/24 14:00	02/27/24 11:39	1
Molybdenum	6.5		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 11:39	1
Potassium	3000		1000	220	ug/L		02/26/24 14:00	02/27/24 11:39	1
Selenium	ND		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 11:39	1
Sodium	1200000		5000	1600	ug/L		02/26/24 14:00	02/29/24 13:27	5
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride (EPA 300.0-1993 R2.1)	0.50		0.10	0.048	mg/L			03/03/24 13:53	2

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-604208/1-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 15:52	1
Arsenic	ND		5.0	0.75	ug/L		02/26/24 14:00	02/27/24 15:52	1
Barium	ND		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 15:52	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 15:52	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:52	1
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 15:52	1
Chromium	ND		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 15:52	1
Cobalt	ND		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 15:52	1
Lead	ND		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 15:52	1
Lithium	ND		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 15:52	1
Magnesium	ND		1000	61	ug/L		02/26/24 14:00	02/27/24 15:52	1
Molybdenum	ND		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 15:52	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 15:52	1
Selenium	ND		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 15:52	1
Thallium	0.430	J	1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:52	1

Lab Sample ID: MB 240-604208/1-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		02/26/24 14:00	02/29/24 13:09	1

Lab Sample ID: LCS 240-604208/2-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.6		ug/L		100	80 - 120
Arsenic	1000	989		ug/L		99	80 - 120
Barium	1000	970		ug/L		97	80 - 120
Beryllium	500	474		ug/L		95	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24200		ug/L		97	80 - 120
Chromium	500	477		ug/L		95	80 - 120
Cobalt	500	499		ug/L		100	80 - 120
Lead	500	484		ug/L		97	80 - 120
Lithium	500	487		ug/L		97	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	485		ug/L		97	80 - 120
Potassium	25000	24700		ug/L		99	80 - 120
Selenium	1000	998		ug/L		100	80 - 120
Thallium	1000	938		ug/L		94	80 - 120

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-604203/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 604334
Prep Batch: 604203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:05	1

Lab Sample ID: LCS 240-604203/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 604334
Prep Batch: 604203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.01		ug/L		100	80 - 120

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-604774/3
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 604774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/03/24 07:50	1

Lab Sample ID: LCS 240-604774/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 604774

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.55		mg/L		102	90 - 110

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Metals

Prep Batch: 604203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199892-1	2018-03-F-A4-20240222-01	Total/NA	Water	7470A	
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 604208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199892-1	2018-03-F-A4-20240222-01	Total Recoverable	Water	3005A	
MB 240-604208/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-604208/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 604334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199892-1	2018-03-F-A4-20240222-01	Total/NA	Water	7470A	604203
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	604203
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	604203

Analysis Batch: 604389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199892-1	2018-03-F-A4-20240222-01	Total Recoverable	Water	6020B	604208
MB 240-604208/1-A	Method Blank	Total Recoverable	Water	6020B	604208
LCS 240-604208/2-A	Lab Control Sample	Total Recoverable	Water	6020B	604208

Analysis Batch: 604611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199892-1	2018-03-F-A4-20240222-01	Total Recoverable	Water	6020B	604208
MB 240-604208/1-A	Method Blank	Total Recoverable	Water	6020B	604208

General Chemistry

Analysis Batch: 604774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199892-1	2018-03-F-A4-20240222-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-604774/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-604774/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Client Sample ID: 2018-03-F-A4-20240222-01
Lab Sample ID: 240-199892-1

Date Collected: 02/22/24 10:00
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 11:39
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		5	604611	RKT	EET CLE	02/29/24 13:27
Total/NA	Prep	7470A			604203	BN	EET CLE	02/26/24 14:00
Total/NA	Analysis	7470A		1	604334	TQ6W	EET CLE	02/27/24 11:28
Total/NA	Analysis	300.0-1993 R2.1		2	604774	JWW	EET CLE	03/03/24 13:53

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199892-1
Project/Site: Federal CCR Wells - App IV - Snap Sampler

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
80 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

1.7 1.7

Chain of Custody Record

Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 3307 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-2171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV - Snap Samples	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	6020, 7470A	300.0_28D - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:			D	N		
2018-03-F-A4-20240222-c1	2-22-24	1000	G	Water	N	1	1		*Extra Sample for analysis included 2100mL *
				Water					
				Water					
				Water					
				Water					

240-199892 Chain of Custody

Possible Hazard Identification
☐ Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Casto	2-22-24 1105	KEMRON	Ashley Deal	2/22/24 2:15	ETA
2	Ashley Deal	2/22/24 1700	ETA		2-23-24 800	ETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 199892
Barberton Facility

Client LightStone Site Name

Cooler Received on 2-23-24 Opened on 2-23-24

Cooler unpacked by:

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp 1.7 °C Corrected Cooler Temp 1.7 °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8.	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC316719
14	Were VOAs on the COC?	Yes No
15.	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No NA
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation Date/Time VOAs Frozen.

2/23/2024

Login Container Summary Report

240-199892

3/4/2024

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2018-03-F A4-20240222-01	240-199892-C-1	Plastic 250ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 3/27/2024 3:53:16 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-199893-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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3/27/2024 3:53:16 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-199893-1 Eurofins Cleveland

Job Narrative
240-199893-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/23/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1°C and 1.6°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A4-20240221-01 (240-199893-1) and DUP-001-F-A4-20240221-01 (240-199893-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-650190

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240221-01 (240-199893-1), 9631-F-A4-20240221-01 (240-199893-1[MS]), 9631-F-A4-20240221-01 (240-199893-1[MSD]) and DUP-001-F-A4-20240221-01 (240-199893-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 prep batch 160-650190:

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 160-650190 and analytical batch 160-653889 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. 9631-F-A4-20240221-01 (240-199893-1[MS]) and 9631-F-A4-20240221-01 (240-199893-1[MSD])

Method 9315_Ra226: Radium-226 prep batch 160-650190:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 9631-F-A4-20240221-01 (240-199893-1), 9631-F-A4-20240221-01 (240-199893-1[MS]), 9631-F-A4-20240221-01 (240-199893-1[MSD]) and DUP-001-F-A4-20240221-01 (240-199893-2)

Method 9320_Ra228: Radium 228 prep batch 160-650192

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240221-01 (240-199893-1), 9631-F-A4-20240221-01 (240-199893-1[MS]), 9631-F-A4-20240221-01 (240-199893-1[MSD]) and DUP-001-F-A4-20240221-01 (240-199893-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix

interference.

Method 9320_Ra228: Radium-228 prep batch 160-650192:

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 160-650192 and analytical batch 160-653894 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 9320_Ra228: Radium-228 prep batch 160-650192:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 9631-F-A4-20240221-01 (240-199893-1), 9631-F-A4-20240221-01 (240-199893-1[MS]), 9631-F-A4-20240221-01 (240-199893-1[MSD]) and DUP-001-F-A4-20240221-01 (240-199893-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-199893-1	9631-F-A4-20240221-01	Water	02/21/24 11:08	02/23/24 08:00
240-199893-2	DUP-001-F-A4-20240221-01	Water	02/21/24 00:00	02/23/24 08:00
240-199893-3	EB-001-F-A4-20240221-01	Water	02/21/24 14:30	02/23/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-199893-1

Client Sample ID: 9631-F-A4-20240221-01 — Lab Sample ID: 240-199893-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.67	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	4.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	33000		100	45	ug/L	20		6020B	Total Recoverable
Cadmium	0.48	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	1400000		20000	5100	ug/L	20		6020B	Total Recoverable
Chromium	5.0		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	5.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	330		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	430000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	7.0		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	12000000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.36	J B	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	74		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	74		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: DUP-001-F-A4-20240221-01 — Lab Sample ID: 240-199893-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	38000		100	45	ug/L	20		6020B	Total Recoverable
Cadmium	0.32	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	1600000		20000	5100	ug/L	20		6020B	Total Recoverable
Chromium	5.1		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	5.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	330		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	440000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	6.7		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-001-F-A4-20240221-01 (Continued)
Lab Sample ID: 240-199893-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	1.2	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	12000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	73		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	73		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: EB-001-F-A4-20240221-01
Lab Sample ID: 240-199893-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	3.1	J	8.0	1.7	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-199893-1

Client Sample ID: 9631-F-A4-20240221-01

Date Collected: 02/21/24 11:08
Date Received: 02/23/24 08:00

Lab Sample ID: 240-199893-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.67	J	2.0	0.57	ug/L		02/26/24 14:00	02/27/24 11:21	1
Arsenic	4.3	J	5.0	0.75	ug/L		02/26/24 14:00	02/27/24 11:21	1
Barium	33000		100	45	ug/L		02/26/24 14:00	02/29/24 13:12	20
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 11:21	1
Cadmium	0.48	J	1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:21	1
Calcium	1400000		20000	5100	ug/L		02/26/24 14:00	02/29/24 13:12	20
Chromium	5.0		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 11:21	1
Cobalt	5.6		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 11:21	1
Lead	1.1		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 11:21	1
Lithium	330		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 11:21	1
Magnesium	430000		1000	61	ug/L		02/26/24 14:00	02/27/24 11:21	1
Molybdenum	7.0		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 11:21	1
Potassium	22000		1000	220	ug/L		02/26/24 14:00	02/27/24 11:21	1
Selenium	2.2	J	5.0	0.89	ug/L		02/26/24 14:00	02/27/24 11:21	1
Sodium	12000000		20000	6600	ug/L		02/26/24 14:00	02/29/24 13:12	20
Thallium	0.36	J B	1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	74		5.0	2.6	mg/L			03/05/24 13:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	74		5.0	2.6	mg/L			03/05/24 13:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/05/24 13:34	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			03/05/24 13:50	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	35.5		2.36	3.97	1.00	0.580	pCi/L	02/28/24 09:36	03/25/24 16:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*200*	*X*	*30 - 110*	*02/28/24 09:36*	*03/25/24 16:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	71.6		2.80	7.16	1.00	0.628	pCi/L	02/28/24 09:41	03/25/24 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*200*	*X*	*30 - 110*	*02/28/24 09:41*	*03/25/24 12:11*	*1*
Y Carrier	*82.2*		*30 - 110*	*02/28/24 09:41*	*03/25/24 12:11*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-199893-1

Client Sample ID: 9631-F-A4-20240221-01
Date Collected: 02/21/24 11:08
Date Received: 02/23/24 08:00

Lab Sample ID: 240-199893-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	107		3.66	8.19	5.00	0.628	pCi/L		03/26/24 10:43	1

Client Sample ID: DUP-001-F-A4-20240221-01

Lab Sample ID: 240-199893-2

Date Collected: 02/21/24 00:00

Matrix: Water

Date Received: 02/23/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 11:41	1
Arsenic	**4.3**	**J**	5.0	0.75	ug/L		02/26/24 14:00	02/27/24 11:41	1
Barium	**38000**		100	45	ug/L		02/26/24 14:00	02/27/24 17:05	20
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 11:41	1
Cadmium	**0.32**	**J**	1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:41	1
Calcium	**1600000**		20000	5100	ug/L		02/26/24 14:00	02/27/24 17:05	20
Chromium	**5.1**		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 11:41	1
Cobalt	**5.6**		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 11:41	1
Lead	**1.1**		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 11:41	1
Lithium	**330**		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 11:41	1
Magnesium	**440000**		1000	61	ug/L		02/26/24 14:00	02/27/24 11:41	1
Molybdenum	**6.7**		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 11:41	1
Potassium	**23000**		1000	220	ug/L		02/26/24 14:00	02/27/24 11:41	1
Selenium	**1.2**	**J**	5.0	0.89	ug/L		02/26/24 14:00	02/27/24 11:41	1
Sodium	**12000000**		20000	6600	ug/L		02/26/24 14:00	02/29/24 13:29	20
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**73**		5.0	2.6	mg/L			03/05/24 14:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**73**		5.0	2.6	mg/L			03/05/24 14:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/05/24 14:16	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			03/05/24 14:10	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**37.6**		2.46	4.19	1.00	0.542	pCi/L	02/28/24 09:36	03/25/24 16:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*190*	*X*	*30 - 110*	*02/28/24 09:36*	*03/25/24 16:47*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**70.4**		2.76	7.04	1.00	0.667	pCi/L	02/28/24 09:41	03/25/24 12:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*190*	*X*	*30 - 110*	*02/28/24 09:41*	*03/25/24 12:15*	*1*
Y Carrier	*84.5*		*30 - 110*	*02/28/24 09:41*	*03/25/24 12:15*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: DUP-001-F-A4-20240221-01
Lab Sample ID: 240-199893-2
Date Collected: 02/21/24 00:00
Matrix: Water
Date Received: 02/23/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	108		3.70	8.19	5.00	0.667	pCi/L		03/26/24 10:43	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-199893-1

Client Sample ID: EB-001-F-A4-20240221-01

Lab Sample ID: 240-199893-3

Date Collected: 02/21/24 14:30

Matrix: Water

Date Received: 02/23/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 11:49	1
Arsenic	ND		5.0	0.75	ug/L		02/26/24 14:00	02/27/24 11:49	1
Barium	ND		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 11:49	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 11:49	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:49	1
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 11:49	1
Chromium	ND		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 11:49	1
Cobalt	ND		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 11:49	1
Lead	ND		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 11:49	1
Lithium	3.1	J	8.0	1.7	ug/L		02/26/24 14:00	02/27/24 11:49	1
Magnesium	ND		1000	61	ug/L		02/26/24 14:00	02/27/24 11:49	1
Molybdenum	ND		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 11:49	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 11:49	1
Selenium	ND		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 11:49	1
Sodium	ND		20000	6600	ug/L		02/26/24 14:00	02/29/24 13:32	20
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 11:49	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/05/24 12:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/05/24 12:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/05/24 12:24	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			03/03/24 13:12	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00531	U	0.167	0.167	1.00	0.357	pCi/L	02/28/24 09:36	03/25/24 16:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.7*		*30 - 110*	*02/28/24 09:36*	*03/25/24 16:47*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.277	U	0.346	0.347	1.00	0.573	pCi/L	02/28/24 09:41	03/25/24 12:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.7*		*30 - 110*	*02/28/24 09:41*	*03/25/24 12:15*	*1*
Y Carrier	*85.6*		*30 - 110*	*02/28/24 09:41*	*03/25/24 12:15*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-199893-1

Client Sample ID: EB-001-F-A4-20240221-01
Date Collected: 02/21/24 14:30
Date Received: 02/23/24 08:00

Lab Sample ID: 240-199893-3
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.272	U	0.384	0.385	5.00	0.573	pCi/L		03/26/24 10:43	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-199893-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-199893-1	9631-F-A4-20240221-01	200 X
240-199893-1 MS	9631-F-A4-20240221-01	182 X
240-199893-1 MSD	9631-F-A4-20240221-01	181 X
240-199893-2	DUP-001-F-A4-20240221-01	190 X
240-199893-3	EB-001-F-A4-20240221-01	77.7
LCS 160-650190/2-A	Lab Control Sample	93.7
MB 160-650190/1-A	Method Blank	88.1

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-199893-1	9631-F-A4-20240221-01	200 X	82.2
240-199893-1 MS	9631-F-A4-20240221-01	182 X	80.0
240-199893-1 MSD	9631-F-A4-20240221-01	181 X	83.7
240-199893-2	DUP-001-F-A4-20240221-01	190 X	84.5
240-199893-3	EB-001-F-A4-20240221-01	77.7	85.6
LCS 160-650192/2-A	Lab Control Sample	93.7	84.9
MB 160-650192/1-A	Method Blank	88.1	82.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-604208/1-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 15:52	1
Arsenic	ND		5.0	0.75	ug/L		02/26/24 14:00	02/27/24 15:52	1
Barium	ND		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 15:52	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 15:52	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:52	1
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 15:52	1
Chromium	ND		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 15:52	1
Cobalt	ND		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 15:52	1
Lead	ND		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 15:52	1
Lithium	ND		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 15:52	1
Magnesium	ND		1000	61	ug/L		02/26/24 14:00	02/27/24 15:52	1
Molybdenum	ND		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 15:52	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 15:52	1
Selenium	ND		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 15:52	1
Thallium	0.430	J	1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:52	1

Lab Sample ID: MB 240-604208/1-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		02/26/24 14:00	02/29/24 13:09	1

Lab Sample ID: LCS 240-604208/2-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.6		ug/L		100	80 - 120
Arsenic	1000	989		ug/L		99	80 - 120
Barium	1000	970		ug/L		97	80 - 120
Beryllium	500	474		ug/L		95	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24200		ug/L		97	80 - 120
Chromium	500	477		ug/L		95	80 - 120
Cobalt	500	499		ug/L		100	80 - 120
Lead	500	484		ug/L		97	80 - 120
Lithium	500	487		ug/L		97	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	485		ug/L		97	80 - 120
Potassium	25000	24700		ug/L		99	80 - 120
Selenium	1000	998		ug/L		100	80 - 120
Sodium	25000	25300		ug/L		101	80 - 120
Thallium	1000	938		ug/L		94	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-199893-1 MS
Matrix: Water
Analysis Batch: 604389

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	97.6		ug/L		98	80 - 120
Arsenic	ND		1000	1060		ug/L		106	80 - 120
Beryllium	ND		500	473		ug/L		95	80 - 120
Cadmium	ND		500	460		ug/L		92	80 - 120
Chromium	ND		500	452		ug/L		90	80 - 120
Cobalt	4.7	J	500	532		ug/L		106	80 - 120
Lead	ND		500	447		ug/L		89	80 - 120
Lithium	360		500	832		ug/L		95	80 - 120
Magnesium	450000		25000	474000	4	ug/L		112	80 - 120
Molybdenum	ND		500	511		ug/L		102	80 - 120
Potassium	22000		25000	48500		ug/L		108	80 - 120
Selenium	ND		1000	1010		ug/L		101	80 - 120
Thallium	ND		1000	903		ug/L		90	80 - 120

Lab Sample ID: 240-199893-1 MS
Matrix: Water
Analysis Batch: 604611

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	33000		1000	34400	4	ug/L		145	80 - 120
Calcium	1400000		25000	1440000	4	ug/L		47	80 - 120
Sodium	12000000		25000	12000000	4	ug/L		342	80 - 120

Lab Sample ID: 240-199893-1 MSD
Matrix: Water
Analysis Batch: 604389

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	96.8		ug/L		97	80 - 120	1	20
Arsenic	ND		1000	1060		ug/L		106	80 - 120	0	20
Beryllium	ND		500	465		ug/L		93	80 - 120	2	20
Cadmium	ND		500	458		ug/L		92	80 - 120	0	20
Chromium	ND		500	457		ug/L		91	80 - 120	1	20
Cobalt	4.7	J	500	518		ug/L		103	80 - 120	3	20
Lead	ND		500	444		ug/L		89	80 - 120	1	20
Lithium	360		500	822		ug/L		93	80 - 120	1	20
Magnesium	450000		25000	480000	4	ug/L		135	80 - 120	1	20
Molybdenum	ND		500	507		ug/L		101	80 - 120	1	20
Potassium	22000		25000	47800		ug/L		105	80 - 120	2	20
Selenium	ND		1000	983		ug/L		98	80 - 120	3	20
Thallium	ND		1000	904		ug/L		90	80 - 120	0	20

Lab Sample ID: 240-199893-1 MSD
Matrix: Water
Analysis Batch: 604611

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604208

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	33000		1000	35000	4	ug/L		200	80 - 120	2	20
Calcium	1400000		25000	1510000	4	ug/L		327	80 - 120	5	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-199893-1 MSD — **Client Sample ID: 9631-F-A4-20240221-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 604611 — **Prep Batch: 604208**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	12000000		25000	12600000	4	ug/L		2796	80 - 120	5	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-604203/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604334 — **Prep Batch: 604203**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:05	1

Lab Sample ID: LCS 240-604203/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604334 — **Prep Batch: 604203**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.01		ug/L		100	80 - 120

Lab Sample ID: 240-199893-1 MS — **Client Sample ID: 9631-F-A4-20240221-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604334 — **Prep Batch: 604203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.08		ug/L		108	80 - 120

Lab Sample ID: 240-199893-1 MSD — **Client Sample ID: 9631-F-A4-20240221-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 604334 — **Prep Batch: 604203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.08		ug/L		108	80 - 120	0	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: LB 240-604777/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605052

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/05/24 12:31	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:31	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:31	1

Lab Sample ID: MB 240-605052/29 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605052

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/05/24 14:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 14:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 14:25	1

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-605052/4
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/05/24 12:20	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:20	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:20	1

Lab Sample ID: LCS 240-605052/28
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	85.3		mg/L		106	86 - 123

Lab Sample ID: LCS 240-605052/3
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	83.3		mg/L		103	86 - 123

Lab Sample ID: 240-199893-1 DU
Matrix: Water
Analysis Batch: 605052

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	74		72.8		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	74		72.8		mg/L		2	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Lab Sample ID: 240-199893-3 DU
Matrix: Water
Analysis Batch: 605052

Client Sample ID: EB-001-F-A4-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	ND		ND		mg/L		NC	20
Bicarbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-604774/3
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/03/24 07:50	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-604774/4
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.55		mg/L		102	90 - 110		

Lab Sample ID: 240-199893-1 MS
Matrix: Water
Analysis Batch: 604774

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	ND		250	226		mg/L		90	80 - 120		

Lab Sample ID: 240-199893-1 MSD
Matrix: Water
Analysis Batch: 604774

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		250	229		mg/L		92	80 - 120	1	15

Lab Sample ID: MB 240-604990/3
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/05/24 12:09	1

Lab Sample ID: LCS 240-604990/4
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.50		mg/L		100	90 - 110		

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-650190/1-A
Matrix: Water
Analysis Batch: 653748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 650190

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01152	U	0.175	0.175	1.00	0.361	pCi/L	02/28/24 09:36	03/25/24 16:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*02/28/24 09:36*	*03/25/24 16:30*	*1*

Lab Sample ID: LCS 160-650190/2-A
Matrix: Water
Analysis Batch: 653748

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 650190

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.41		1.34	1.00	0.262	pCi/L	92	75 - 125		

Method: 9315 - Radium 226 by GFPC (Continued)

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.7		30 - 110

Lab Sample ID: 240-199893-1 MS
Matrix: Water
Analysis Batch: 653889

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA
Prep Batch: 650190

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	35.5		15.0	43.28	F1	4.65	1.00	0.573	pCi/L	52	60 - 140

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	182	X	30 - 110

Lab Sample ID: 240-199893-1 MSD
Matrix: Water
Analysis Batch: 653889

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA
Prep Batch: 650190

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	35.5		15.3	42.05	F1	4.56	1.00	0.642	pCi/L	43	60 - 140	0.13	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	181	X	30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-650192/1-A
Matrix: Water
Analysis Batch: 653748

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 650192

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1333	U	0.428	0.428	1.00	0.771	pCi/L	02/28/24 09:41	03/25/24 15:43	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		30 - 110	02/28/24 09:41	03/25/24 15:43	1
Y Carrier	82.6		30 - 110	02/28/24 09:41	03/25/24 15:43	1

Lab Sample ID: LCS 160-650192/2-A
Matrix: Water
Analysis Batch: 653894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 650192

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228			9.09	9.993		1.33	1.00	0.566	pCi/L	110	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.7		30 - 110
Y Carrier	84.9		30 - 110

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-199893-1 MS
Matrix: Water
Analysis Batch: 653894

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA
Prep Batch: 650192

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	71.6		12.0	77.77	F1	7.73	1.00	0.652	pCi/L	51	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*182*	*X*	*30 - 110*
Y Carrier	*80.0*		*30 - 110*

Lab Sample ID: 240-199893-1 MSD
Matrix: Water
Analysis Batch: 653894

Client Sample ID: 9631-F-A4-20240221-01
Prep Type: Total/NA
Prep Batch: 650192

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	71.6		12.2	75.39	F1	7.50	1.00	0.596	pCi/L	31	60 - 140	0.16	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*181*	*X*	*30 - 110*
Y Carrier	*83.7*		*30 - 110*

Metals

Prep Batch: 604203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total/NA	Water	7470A	
240-199893-2	DUP-001-F-A4-20240221-01	Total/NA	Water	7470A	
240-199893-3	EB-001-F-A4-20240221-01	Total/NA	Water	7470A	
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-199893-1 MS	9631-F-A4-20240221-01	Total/NA	Water	7470A	
240-199893-1 MSD	9631-F-A4-20240221-01	Total/NA	Water	7470A	

Prep Batch: 604208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total Recoverable	Water	3005A	
240-199893-2	DUP-001-F-A4-20240221-01	Total Recoverable	Water	3005A	
240-199893-3	EB-001-F-A4-20240221-01	Total Recoverable	Water	3005A	
MB 240-604208/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-604208/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-199893-1 MS	9631-F-A4-20240221-01	Total Recoverable	Water	3005A	
240-199893-1 MSD	9631-F-A4-20240221-01	Total Recoverable	Water	3005A	

Analysis Batch: 604334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total/NA	Water	7470A	604203
240-199893-2	DUP-001-F-A4-20240221-01	Total/NA	Water	7470A	604203
240-199893-3	EB-001-F-A4-20240221-01	Total/NA	Water	7470A	604203
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	604203
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	604203
240-199893-1 MS	9631-F-A4-20240221-01	Total/NA	Water	7470A	604203
240-199893-1 MSD	9631-F-A4-20240221-01	Total/NA	Water	7470A	604203

Analysis Batch: 604389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-2	DUP-001-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-2	DUP-001-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-3	EB-001-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
MB 240-604208/1-A	Method Blank	Total Recoverable	Water	6020B	604208
LCS 240-604208/2-A	Lab Control Sample	Total Recoverable	Water	6020B	604208
240-199893-1 MS	9631-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-1 MSD	9631-F-A4-20240221-01	Total Recoverable	Water	6020B	604208

Analysis Batch: 604611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-2	DUP-001-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-3	EB-001-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
MB 240-604208/1-A	Method Blank	Total Recoverable	Water	6020B	604208
240-199893-1 MS	9631-F-A4-20240221-01	Total Recoverable	Water	6020B	604208
240-199893-1 MSD	9631-F-A4-20240221-01	Total Recoverable	Water	6020B	604208

General Chemistry

Analysis Batch: 604774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-3	EB-001-F-A4-20240221-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-604774/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-604774/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-199893-1 MS	9631-F-A4-20240221-01	Total/NA	Water	300.0-1993 R2.1	
240-199893-1 MSD	9631-F-A4-20240221-01	Total/NA	Water	300.0-1993 R2.1	

Leach Batch: 604777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 240-604777/1-A	Method Blank	Total/NA	Water	D3987-06	

Analysis Batch: 604990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total/NA	Water	300.0-1993 R2.1	
240-199893-2	DUP-001-F-A4-20240221-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-604990/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-604990/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 605052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total/NA	Water	2320B-1997	
240-199893-2	DUP-001-F-A4-20240221-01	Total/NA	Water	2320B-1997	
240-199893-3	EB-001-F-A4-20240221-01	Total/NA	Water	2320B-1997	
LB 240-604777/1-A	Method Blank	Total/NA	Water	2320B-1997	604777
MB 240-605052/29	Method Blank	Total/NA	Water	2320B-1997	
MB 240-605052/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-605052/28	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-605052/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-199893-1 DU	9631-F-A4-20240221-01	Total/NA	Water	2320B-1997	
240-199893-3 DU	EB-001-F-A4-20240221-01	Total/NA	Water	2320B-1997	

Rad

Prep Batch: 650190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total/NA	Water	PrecSep-21	
240-199893-2	DUP-001-F-A4-20240221-01	Total/NA	Water	PrecSep-21	
240-199893-3	EB-001-F-A4-20240221-01	Total/NA	Water	PrecSep-21	
MB 160-650190/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-650190/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-199893-1 MS	9631-F-A4-20240221-01	Total/NA	Water	PrecSep-21	
240-199893-1 MSD	9631-F-A4-20240221-01	Total/NA	Water	PrecSep-21	

Prep Batch: 650192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199893-1	9631-F-A4-20240221-01	Total/NA	Water	PrecSep_0	
240-199893-2	DUP-001-F-A4-20240221-01	Total/NA	Water	PrecSep_0	
240-199893-3	EB-001-F-A4-20240221-01	Total/NA	Water	PrecSep_0	
MB 160-650192/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-650192/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-199893-1 MS	9631-F-A4-20240221-01	Total/NA	Water	PrecSep_0	
240-199893-1 MSD	9631-F-A4-20240221-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 9631-F-A4-20240221-01
Lab Sample ID: 240-199893-1

Date Collected: 02/21/24 11:08
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 11:21
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		20	604611	RKT	EET CLE	02/29/24 13:12
Total/NA	Prep	7470A			604203	BN	EET CLE	02/26/24 14:00
Total/NA	Analysis	7470A		1	604334	TQ6W	EET CLE	02/27/24 11:22
Total/NA	Analysis	2320B-1997		1	605052	QUY8	EET CLE	03/05/24 13:34
Total/NA	Analysis	300.0-1993 R2.1		50	604990	JWW	EET CLE	03/05/24 13:50
Total/NA	Prep	PrecSep-21			650190	KAC	EET SL	02/28/24 09:36
Total/NA	Analysis	9315		1	653889	SWS	EET SL	03/25/24 16:46
Total/NA	Prep	PrecSep_0			650192	KAC	EET SL	02/28/24 09:41
Total/NA	Analysis	9320		1	653894	SCB	EET SL	03/25/24 12:11
Total/NA	Analysis	Ra226_Ra228		1	653993	FLC	EET SL	03/26/24 10:43

Client Sample ID: DUP-001-F-A4-20240221-01
Lab Sample ID: 240-199893-2

Date Collected: 02/21/24 00:00
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 11:41
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		20	604389	RKT	EET CLE	02/27/24 17:05
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		20	604611	RKT	EET CLE	02/29/24 13:29
Total/NA	Prep	7470A			604203	BN	EET CLE	02/26/24 14:00
Total/NA	Analysis	7470A		1	604334	TQ6W	EET CLE	02/27/24 11:30
Total/NA	Analysis	2320B-1997		1	605052	QUY8	EET CLE	03/05/24 14:16
Total/NA	Analysis	300.0-1993 R2.1		50	604990	JWW	EET CLE	03/05/24 14:10
Total/NA	Prep	PrecSep-21			650190	KAC	EET SL	02/28/24 09:36
Total/NA	Analysis	9315		1	653889	SWS	EET SL	03/25/24 16:47
Total/NA	Prep	PrecSep_0			650192	KAC	EET SL	02/28/24 09:41
Total/NA	Analysis	9320		1	653748	SWS	EET SL	03/25/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	653993	FLC	EET SL	03/26/24 10:43

Client Sample ID: EB-001-F-A4-20240221-01
Lab Sample ID: 240-199893-3

Date Collected: 02/21/24 14:30
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 11:49
Total Recoverable	Prep	3005A			604208	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		20	604611	RKT	EET CLE	02/29/24 13:32

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: EB-001-F-A4-20240221-01
Lab Sample ID: 240-199893-3

Date Collected: 02/21/24 14:30
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			604203	BN	EET CLE	02/26/24 14:00
Total/NA	Analysis	7470A		1	604334	TQ6W	EET CLE	02/27/24 11:32
Total/NA	Analysis	2320B-1997		1	605052	QUY8	EET CLE	03/05/24 12:24
Total/NA	Analysis	300.0-1993 R2.1		1	604774	JWW	EET CLE	03/03/24 13:12
Total/NA	Prep	PrecSep-21			650190	KAC	EET SL	02/28/24 09:36
Total/NA	Analysis	9315		1	653889	SWS	EET SL	03/25/24 16:47
Total/NA	Prep	PrecSep_0			650192	KAC	EET SL	02/28/24 09:41
Total/NA	Analysis	9320		1	653748	SWS	EET SL	03/25/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	653993	FLC	EET SL	03/26/24 10:43

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	03-06-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199893-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins | Environment Testing America

Client Information	Sampler: Bobby Caste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9631-F-A4-20240221-01	2-21-24	1108	G	Water	N		1	1	1	2		
9631-F-A4-20240221-MS-01	2-21-24	1108	G	Water	N	Y	1	1	1	2		
9631-F-A4-20240221-MSD-01	2-21-24	1108	G	Water	N	Y	1	1	1	2		
DUP-01-F-A4-20240221-01	2-21-24	—	G	Water	N		1	1	1	2		
FB-001-F-A4-20240221-01	2-21-24	1430	G	Water	N		1	1	1	2		

240-199893 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Caste	2-22-24 / 0900	Kemron	Ashley Deal	2/22/24 2:15	ETA
2	Ashley Deal	2/22/24 1700	ETA		2-23-24 800	Kemron
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

3/27/2024

Login # 199893

Eurofins – Cleveland Sample Receipt Form/Narrative
Barberton Facility

Client Lightstone Site Name

Cooler Received on 2-23-24 Opened on 2-23-24

Cooler unpacked by:

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt: ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1each	(Yes) No
	Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	(Yes) No
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Yes) No
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12.	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC316719
14.	Were VOAs on the COC?	(Yes) No
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen. _____

WT NC 099

2/23/2024

Login Container Summary Report

240-199893

3/27/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631 F-A4 20240221-01	240-199893-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F A4-20240221-01	240-199893-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893 D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-D-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-E-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-E-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20240221-01	240-199893-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001 F-A4-20240221-01	240-199893 D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F A4-20240221-01	240-199893-E-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F A4-20240221-01	240-199893-C-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A4-20240221-01	240-199893-D-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240221-01	240-199893-E-3	Plastic 1 liter - Nitric Acid	<2			

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.6	1.6	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.6	1.6	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins | Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
Preservation Code:					X	X	D	N	N	D	X	
9631-F-A4-20240221-01	2-21-24	1108	G	Water	N		1	1	1	2		
9631-F-A4-20240221-MS-01	2-21-24	1108	G	Water	N	Y	1	1	1	2		
9631-F-A4-20240221-MSD-01	2-21-24	1108	G	Water	N	Y	1	1	1	2		
DUP-01-F-A4-20240221-01	2-21-24	—	G	Water	N		1	1	1	2		
FB-001-F-A4-20240221-01	2-21-24	1430	G	Water	N		1	1	1	2		

240-199893 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	2-22-24 / 0900	Kemron	ASHLEY Deal	2/22/24 2:15	ETA
2	ASHLEY Deal	2/22/24 1700	ETA	[signature]	2-23-24 800	KEMRON
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 199893
Barberton Facility

Client Light Stone Site Name _____ Cooler unpacked by:

Cooler Received on 2-23-24 Opened on 2-23-24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt: ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1each	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	Yes No
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC316719
14.	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No NA
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes No
17	Was a LL Hg or Me Hg trip blank present? _____	Yes No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(1) EC Client Box Other	IR GUN #: 22	1.1	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 22	1.6	1.6	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

2/23/2024

Login Container Summary Report

240-199893

3/27/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631 F-A4-20240221-01	240-199893-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F A4-20240221-01	240-199893-C-1 MSD	Plastic 500ml with Nitric Acid	<2			
9631-F-A4 20240221-01	240-199893-D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F A4-20240221-01	240 199893 D-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240221-01	240-199893-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F A4-20240221-01	240 199893 E-1	Plastic 1 liter Nitric Acid	<2			
9631-F A4-20240221-01	240-199893 E-1 MS	Plastic 1 liter Nitric Acid	<2			
9631 F-A4-20240221-01	240-199893-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			
DUP-001 F-A4-20240221-01	240-199893-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A4 20240221-01	240-199893 D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20240221-01	240-199893-E-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4 20240221-01	240 199893-C-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F A4-20240221-01	240-199893-D-3	Plastic 1 liter - Nitric Acid	<2			
EB-001 F-A4-20240221-01	240-199893 E-3	Plastic 1 liter Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181039.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-199893-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/7/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045	PO #:			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:			
Email:				
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
9631-F-A4-20240221-01 (240-199893-1)	2/21/24	11:08 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
9631-F-A4-20240221-01 (240-199893-1MS)	2/21/24	11:08 Eastern	MS	Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
9631-F-A4-20240221-01 (240-199893-1MSD)	2/21/24	11:08 Eastern	MSD	Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-001-F-A4-20240221-01 (240-199893-2)	2/21/24	Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-A4-20240221-01 (240-199893-3)	2/21/24	14:30 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Rachelle Harner	2/23/24 1325	EETNC	M Pinette	FEB 26 2024 0821	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-199893-1

Login Number: 199893
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 02/26/24 03:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 3/6/2024 7:33:18 PM

JOB DESCRIPTION

Federal CCR Wells - App III & IV Combined

JOB NUMBER

240-199895-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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3/6/2024 7:33:18 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-199895-1 Eurofins Cleveland

Job Narrative
240-199895-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 2/23/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1°C and 1.6°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-199895-1	9910-F-A34C-20240221-01	Water	02/21/24 13:45	02/23/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Client Sample ID: 9910-F-A34C-20240221-01
Lab Sample ID: 240-199895-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	510		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	230		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Lithium	29		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	14		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2700		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	15		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1200000		10000	3300	ug/L	10		6020B	Total Recoverable
Chloride	1100		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	1.6		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	120		5.0	1.7	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Client Sample ID: 9910-F-A34C-20240221-01
Lab Sample ID: 240-199895-1
Date Collected: 02/21/24 13:45
Matrix: Water
Date Received: 02/23/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100	57	ug/L		02/26/24 14:00	03/01/24 17:32	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 16:42	1
Arsenic	2.9	J	5.0	0.75	ug/L		02/26/24 14:00	02/27/24 16:42	1
Barium	230		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 16:42	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 16:42	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 16:42	1
Calcium	13000		1000	250	ug/L		02/26/24 14:00	02/27/24 16:42	1
Chromium	1.8	J	5.0	1.2	ug/L		02/26/24 14:00	02/27/24 16:42	1
Cobalt	ND		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 16:42	1
Lead	ND		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 16:42	1
Lithium	29		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 16:42	1
Magnesium	4100		1000	61	ug/L		02/26/24 14:00	02/27/24 16:42	1
Molybdenum	14		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 16:42	1
Potassium	2700		1000	220	ug/L		02/26/24 14:00	02/27/24 16:42	1
Selenium	15		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 16:42	1
Sodium	1200000		10000	3300	ug/L		02/26/24 14:00	02/29/24 14:05	10
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 16:42	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	1100		20	2.6	mg/L			03/03/24 14:53	20
Fluoride (EPA 300.0)	1.6		0.10	0.048	mg/L			03/03/24 14:33	2
Sulfate (EPA 300.0)	120		5.0	1.7	mg/L			03/05/24 15:10	5

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604825

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		02/26/24 14:00	03/01/24 15:53	1

Lab Sample ID: LCS 240-604200/2-A
Matrix: Water
Analysis Batch: 604825

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		02/26/24 14:00	02/27/24 15:42	1
Arsenic	ND		5.0	0.75	ug/L		02/26/24 14:00	02/27/24 15:42	1
Barium	ND		5.0	2.2	ug/L		02/26/24 14:00	02/27/24 15:42	1
Beryllium	ND		1.0	0.62	ug/L		02/26/24 14:00	02/27/24 15:42	1
Cadmium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:42	1
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 15:42	1
Chromium	ND		5.0	1.2	ug/L		02/26/24 14:00	02/27/24 15:42	1
Cobalt	ND		1.0	0.19	ug/L		02/26/24 14:00	02/27/24 15:42	1
Lead	ND		1.0	0.45	ug/L		02/26/24 14:00	02/27/24 15:42	1
Lithium	ND		8.0	1.7	ug/L		02/26/24 14:00	02/27/24 15:42	1
Magnesium	ND		1000	61	ug/L		02/26/24 14:00	02/27/24 15:42	1
Molybdenum	ND		5.0	1.1	ug/L		02/26/24 14:00	02/27/24 15:42	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 15:42	1
Selenium	ND		5.0	0.89	ug/L		02/26/24 14:00	02/27/24 15:42	1
Thallium	ND		1.0	0.20	ug/L		02/26/24 14:00	02/27/24 15:42	1

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		02/26/24 14:00	02/29/24 13:37	1

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	94.5		ug/L		94	80 - 120
Arsenic	1000	903		ug/L		90	80 - 120
Barium	1000	926		ug/L		93	80 - 120
Beryllium	500	427		ug/L		85	80 - 120
Cadmium	500	472		ug/L		94	80 - 120
Calcium	25000	23000		ug/L		92	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	500	470		ug/L		94	80 - 120
Cobalt	500	461		ug/L		92	80 - 120
Lead	500	470		ug/L		94	80 - 120
Lithium	500	495		ug/L		99	80 - 120
Magnesium	25000	24000		ug/L		96	80 - 120
Molybdenum	500	460		ug/L		92	80 - 120
Potassium	25000	24100		ug/L		96	80 - 120
Selenium	1000	892		ug/L		89	80 - 120
Thallium	1000	915		ug/L		91	80 - 120

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	23000		ug/L		92	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-604203/1-A
Matrix: Water
Analysis Batch: 604334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604203

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		02/26/24 14:00	02/27/24 11:05	1

Lab Sample ID: LCS 240-604203/2-A
Matrix: Water
Analysis Batch: 604334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604203

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.01		ug/L		100	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-604774/3
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/03/24 07:50	1
Fluoride	ND		0.050	0.024	mg/L			03/03/24 07:50	1

Lab Sample ID: LCS 240-604774/4
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.6		mg/L		103	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-604990/3
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/05/24 12:09	1
Sulfate	ND		1.0	0.35	mg/L			03/05/24 12:09	1

Lab Sample ID: LCS 240-604990/4
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.50		mg/L		100	90 - 110
Sulfate	50.0	52.2		mg/L		104	90 - 110

Metals

Prep Batch: 604200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total Recoverable	Water	3005A	
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-604200/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 604203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total/NA	Water	7470A	
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 604334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total/NA	Water	7470A	604203
MB 240-604203/1-A	Method Blank	Total/NA	Water	7470A	604203
LCS 240-604203/2-A	Lab Control Sample	Total/NA	Water	7470A	604203

Analysis Batch: 604389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total Recoverable	Water	6020B	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6020B	604200
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	6020B	604200

Analysis Batch: 604611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total Recoverable	Water	6020B	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6020B	604200
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	6020B	604200

Analysis Batch: 604825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total Recoverable	Water	6010D	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6010D	604200
LCS 240-604200/2-A	Lab Control Sample	Total Recoverable	Water	6010D	604200

General Chemistry

Analysis Batch: 604774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total/NA	Water	300.0	
240-199895-1	9910-F-A34C-20240221-01	Total/NA	Water	300.0	
MB 240-604774/3	Method Blank	Total/NA	Water	300.0	
LCS 240-604774/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 604990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199895-1	9910-F-A34C-20240221-01	Total/NA	Water	300.0	
MB 240-604990/3	Method Blank	Total/NA	Water	300.0	
LCS 240-604990/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Client Sample ID: 9910-F-A34C-20240221-01
Lab Sample ID: 240-199895-1
Date Collected: 02/21/24 13:45
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6010D		1	604825	AJC	EET CLE	03/01/24 17:32
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 16:42
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		10	604611	RKT	EET CLE	02/29/24 14:05
Total/NA	Prep	7470A			604203	BN	EET CLE	02/26/24 14:00
Total/NA	Analysis	7470A		1	604334	TQ6W	EET CLE	02/27/24 11:11
Total/NA	Analysis	300.0		2	604774	JWW	EET CLE	03/03/24 14:33
Total/NA	Analysis	300.0		20	604774	JWW	EET CLE	03/03/24 14:53
Total/NA	Analysis	300.0		5	604990	JWW	EET CLE	03/05/24 15:10

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199895-1
Project/Site: Federal CCR Wells - App III & IV Combined

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Columbus
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Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Costa	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-97179-35520.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR - Appendix III and IV - Combined	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A (250ml HNO3)	300.0_28D - Fluoride (Appl/W)Cl, F, SO4 (Appl/W) (250ml Unpres)	2320B - Alkalinity	9315_Ra226, 9320_Ra228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9910-FA34C-20240221-01	2-21-24	1345	G	W	N		1	1				*Partial Volume Collected*

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

240-199895 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	2-22-24 / 0900	KEMPER	Ashley Deal	2/22/24 2:15	ESA
2	Ashley Deal	2/22/24 1700	ESA	[signature]	2-23-24 800	ESA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °rc and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 199895
Barberton Facility

Client Lightstone Site Name

Cooler Received on 2-23-24 Opened on 2-23-24

Cooler unpacked by:

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt: ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1each	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8.	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC316719
14.	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● = Larger than this.	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation Date/Time VOAs Frozen.

2/23/2024

Login Container Summary Report

240-199895

3/6/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9910-F-A34C-20240221-01	240 199895-B-1	Plastic 250ml - with Nitric Acid	<2			

Login # : _____

3/6/2024

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.1	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 33	1.6	1.6	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

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Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Costa	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-97179-35520.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:	Analysis Requested		Job #:
Address: 7397 OH-7	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR - Appendix III and IV - Combined	Project #: 24019633			
Site: Gavin	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A (Ca Total, Li Total)	300.0_28D - Fluoride (App/W), Cl, F, SO4 (App/W) (Ca Total, Li Total)	2320B - Alkalinity	9315_Ra228, 9320_Ra228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9910-F-A34C-20240221-01	2-21-24	1345	G	W	N		1	1				*Partial Volume Collected*

240-199895 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	2-22-24 / 0900	KEMRON	Ashley Deal	2/22/24 2:15	ESA
2	Ashley Deal	2/22/24 1700	ESA	[signature]	2-23-24 800	ETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °rc and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative
Barberton Facility

Login # 199895

Client Light Stone Site Name

Cooler Received on 2-23 24 Opened on 2-23-24

Cooler unpacked by:

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt: ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes No
	Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC316719
14.	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No NA
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation Date/Time VOAs Frozen.

WT NC 099

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(IC) Client Box Other	IR GUN #: 22	1.1	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(IC) Client Box Other	IR GUN #: 22	1.6	1.6	(Wet Ice) Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
IC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

2/23/2024

Login Container Summary Report

240-199895

3/6/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9910-F A34C-20240221-01	240-199895 B 1	Plastic 250ml - with Nitric Acid	<2	_____	_____	_____

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 3/6/2024 8:13:36 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-199896-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199896-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-199896-1 Eurofins Cleveland

Job Narrative
240-199896-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/23/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1°C and 1.6°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: An incorrect volume of spiking solution was inadvertently added to the matrix spike duplicate (MSD) associated with analytical batch 240-604990. Percent recoveries are based on the amount spiked.

Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A3-20240221-01 (240-199896-1), DUP-001-F-A3-20240221-01 (240-199896-2) and EB-001-F-A3-20240221-01 (240-199896-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-199896-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199896-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-199896-1	9631-F-A3-20240221-01	Water	02/21/24 11:08	02/23/24 08:00
240-199896-2	DUP-001-F-A3-20240221-01	Water	02/21/24 00:00	02/23/24 08:00
240-199896-3	EB-001-F-A3-20240221-01	Water	02/21/24 14:30	02/23/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-199896-1

Client Sample ID: 9631-F-A3-20240221-01 — Lab Sample ID: 240-199896-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1400000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	410000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	21000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	11000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	66		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	66		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	29000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	35000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-A3-20240221-01 — Lab Sample ID: 240-199896-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1400000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	440000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	12000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	65		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	65		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	30000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	35000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-A3-20240221-01 — Lab Sample ID: 240-199896-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	72	J	1000	61	ug/L	1		6020B	Total Recoverable
Total Alkalinity	3.1	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.1	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	0.14	J	1.0	0.13	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-199896-1

Client Sample ID: 9631-F-A3-20240221-01

Date Collected: 02/21/24 11:08
Date Received: 02/23/24 08:00

Lab Sample ID: 240-199896-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		02/26/24 14:00	03/01/24 16:01	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400000		1000	250	ug/L		02/26/24 14:00	02/27/24 15:54	1
Magnesium	410000		1000	61	ug/L		02/26/24 14:00	02/27/24 15:54	1
Potassium	21000		1000	220	ug/L		02/26/24 14:00	02/27/24 15:54	1
Sodium	11000000		20000	6600	ug/L		02/26/24 14:00	02/29/24 13:42	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	66		5.0	2.6	mg/L			02/29/24 21:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	66		5.0	2.6	mg/L			02/29/24 21:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			02/29/24 21:22	1
Chloride (EPA 300.0)	29000		1000	130	mg/L			03/03/24 17:34	1000
Fluoride (EPA 300.0)	ND	F2	2.5	1.2	mg/L			03/05/24 12:49	50
Sulfate (EPA 300.0)	ND	F2	50	17	mg/L			03/05/24 12:49	50
Total Dissolved Solids (SM 2540C)	35000		1000	780	mg/L			02/27/24 09:31	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-199896-1

Client Sample ID: DUP-001-F-A3-20240221-01

Lab Sample ID: 240-199896-2

Date Collected: 02/21/24 00:00

Matrix: Water

Date Received: 02/23/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		02/26/24 14:00	03/01/24 17:19	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400000		1000	250	ug/L		02/26/24 14:00	02/27/24 16:34	1
Magnesium	440000		1000	61	ug/L		02/26/24 14:00	02/27/24 16:34	1
Potassium	23000		1000	220	ug/L		02/26/24 14:00	02/27/24 16:34	1
Sodium	12000000		20000	6600	ug/L		02/26/24 14:00	02/29/24 13:57	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	65		5.0	2.6	mg/L			02/29/24 22:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	65		5.0	2.6	mg/L			02/29/24 22:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			02/29/24 22:11	1
Chloride (EPA 300.0)	30000		1000	130	mg/L			03/03/24 18:55	1000
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			03/05/24 14:30	50
Sulfate (EPA 300.0)	ND		50	17	mg/L			03/05/24 14:30	50
Total Dissolved Solids (SM 2540C)	35000		1000	780	mg/L			02/27/24 09:31	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-199896-1

Client Sample ID: EB-001-F-A3-20240221-01

Date Collected: 02/21/24 14:30
Date Received: 02/23/24 08:00

Lab Sample ID: 240-199896-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		02/26/24 14:00	03/01/24 17:23	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 16:37	1
Magnesium	**72**	**J**	1000	61	ug/L		02/26/24 14:00	02/27/24 16:37	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 16:37	1
Sodium	ND		1000	330	ug/L		02/26/24 14:00	02/29/24 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**3.1**	**J**	5.0	2.6	mg/L			02/29/24 22:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**3.1**	**J**	5.0	2.6	mg/L			02/29/24 22:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			02/29/24 22:07	1
Chloride (EPA 300.0)	**0.14**	**J**	1.0	0.13	mg/L			03/03/24 12:12	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			03/03/24 12:12	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			03/05/24 16:11	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			02/27/24 09:31	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604825

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		02/26/24 14:00	03/01/24 15:53	1

Lab Sample ID: LCS 240-604200/2-A
Matrix: Water
Analysis Batch: 604825

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Lab Sample ID: 240-199896-1 MS
Matrix: Water
Analysis Batch: 604825

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	350		1000	1400		ug/L		105	75 - 125

Lab Sample ID: 240-199896-1 MSD
Matrix: Water
Analysis Batch: 604825

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	350		1000	1410		ug/L		106	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		02/26/24 14:00	02/27/24 15:42	1
Magnesium	ND		1000	61	ug/L		02/26/24 14:00	02/27/24 15:42	1
Potassium	ND		1000	220	ug/L		02/26/24 14:00	02/27/24 15:42	1

Lab Sample ID: MB 240-604200/1-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		02/26/24 14:00	02/29/24 13:37	1

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604389

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	23000		ug/L		92	80 - 120
Magnesium	25000	24000		ug/L		96	80 - 120
Potassium	25000	24100		ug/L		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-604200/3-A
Matrix: Water
Analysis Batch: 604611

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			25000	23000		ug/L		92	80 - 120		

Lab Sample ID: 240-199896-1 MS
Matrix: Water
Analysis Batch: 604389

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium	1400000		25000	1490000	4	ug/L		390	80 - 120		
Magnesium	410000		25000	456000	4	ug/L		169	80 - 120		
Potassium	21000		25000	46500		ug/L		100	80 - 120		

Lab Sample ID: 240-199896-1 MS
Matrix: Water
Analysis Batch: 604611

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium	11000000		25000	11800000	4	ug/L		4337	80 - 120		

Lab Sample ID: 240-199896-1 MSD
Matrix: Water
Analysis Batch: 604389

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	1400000		25000	1460000	4	ug/L		299	80 - 120	2	20
Magnesium	410000		25000	449000	4	ug/L		141	80 - 120	2	20
Potassium	21000		25000	45800		ug/L		97	80 - 120	1	20

Lab Sample ID: 240-199896-1 MSD
Matrix: Water
Analysis Batch: 604611

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total Recoverable
Prep Batch: 604200

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	11000000		25000	12300000	4	ug/L		6558	80 - 120	5	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-604707/4
Matrix: Water
Analysis Batch: 604707

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			02/29/24 20:08	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			02/29/24 20:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			02/29/24 20:08	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-604707/3
Matrix: Water
Analysis Batch: 604707

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	82.8		mg/L		103	86 - 123		

Lab Sample ID: 240-199896-1 DU
Matrix: Water
Analysis Batch: 604707

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	66			66.0		mg/L				0.4	20
Bicarbonate Alkalinity as CaCO3	66			66.0		mg/L				0.4	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: LB 240-604777/1-A
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/05/24 12:31	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:31	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:31	1

Lab Sample ID: MB 240-605052/29
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/05/24 14:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 14:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 14:25	1

Lab Sample ID: MB 240-605052/4
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/05/24 12:20	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:20	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/05/24 12:20	1

Lab Sample ID: LCS 240-605052/28
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	85.3		mg/L		106	86 - 123		

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-605052/3
Matrix: Water
Analysis Batch: 605052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	83.3		mg/L		103	86 - 123		

Lab Sample ID: 240-199896-1 DU
Matrix: Water
Analysis Batch: 605052

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	72			69.4		mg/L				3	20
Bicarbonate Alkalinity as CaCO3	72			69.4		mg/L				3	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-604774/3
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/03/24 07:50	1
Fluoride	ND		0.050	0.024	mg/L			03/03/24 07:50	1

Lab Sample ID: LCS 240-604774/4
Matrix: Water
Analysis Batch: 604774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	51.6		mg/L		103	90 - 110		
Fluoride			2.50	2.55		mg/L		102	90 - 110		

Lab Sample ID: 240-199896-1 MS
Matrix: Water
Analysis Batch: 604774

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	29000		50000	76600		mg/L		96	80 - 120		

Lab Sample ID: 240-199896-1 MSD
Matrix: Water
Analysis Batch: 604774

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	29000		50000	78500		mg/L		99	80 - 120	2	15

Lab Sample ID: MB 240-604990/3
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			03/05/24 12:09	1
Sulfate	ND		1.0	0.35	mg/L			03/05/24 12:09	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-604990/4
Matrix: Water
Analysis Batch: 604990

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.50		mg/L		100	90 - 110		
Sulfate			50.0	52.2		mg/L		104	90 - 110		

Lab Sample ID: 240-199896-1 MS
Matrix: Water
Analysis Batch: 604990

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	ND	F2	125	112		mg/L		90	80 - 120		
Sulfate	ND	F2	2500	2450		mg/L		98	80 - 120		

Lab Sample ID: 240-199896-1 MSD
Matrix: Water
Analysis Batch: 604990

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND	F2	62.5	61.7	F2	mg/L		99	80 - 120	58	15
Sulfate	ND	F2	1250	1400	F2	mg/L		112	80 - 120	55	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-604299/1
Matrix: Water
Analysis Batch: 604299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			02/27/24 09:31	1

Lab Sample ID: LCS 240-604299/2
Matrix: Water
Analysis Batch: 604299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			232	216		mg/L		93	80 - 120		

Lab Sample ID: 240-199896-1 DU
Matrix: Water
Analysis Batch: 604299

Client Sample ID: 9631-F-A3-20240221-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	35000			30000		mg/L				14	20

Metals

Prep Batch: 604200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total Recoverable	Water	3005A	
240-199896-2	DUP-001-F-A3-20240221-01	Total Recoverable	Water	3005A	
240-199896-3	EB-001-F-A3-20240221-01	Total Recoverable	Water	3005A	
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-604200/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-199896-1 MS	9631-F-A3-20240221-01	Total Recoverable	Water	3005A	
240-199896-1 MS	9631-F-A3-20240221-01	Total Recoverable	Water	3005A	
240-199896-1 MSD	9631-F-A3-20240221-01	Total Recoverable	Water	3005A	
240-199896-1 MSD	9631-F-A3-20240221-01	Total Recoverable	Water	3005A	

Analysis Batch: 604389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
240-199896-2	DUP-001-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
240-199896-3	EB-001-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6020B	604200
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	6020B	604200
240-199896-1 MS	9631-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
240-199896-1 MSD	9631-F-A3-20240221-01	Total Recoverable	Water	6020B	604200

Analysis Batch: 604611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
240-199896-2	DUP-001-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
240-199896-3	EB-001-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6020B	604200
LCS 240-604200/3-A	Lab Control Sample	Total Recoverable	Water	6020B	604200
240-199896-1 MS	9631-F-A3-20240221-01	Total Recoverable	Water	6020B	604200
240-199896-1 MSD	9631-F-A3-20240221-01	Total Recoverable	Water	6020B	604200

Analysis Batch: 604825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total Recoverable	Water	6010D	604200
240-199896-2	DUP-001-F-A3-20240221-01	Total Recoverable	Water	6010D	604200
240-199896-3	EB-001-F-A3-20240221-01	Total Recoverable	Water	6010D	604200
MB 240-604200/1-A	Method Blank	Total Recoverable	Water	6010D	604200
LCS 240-604200/2-A	Lab Control Sample	Total Recoverable	Water	6010D	604200
240-199896-1 MS	9631-F-A3-20240221-01	Total Recoverable	Water	6010D	604200
240-199896-1 MSD	9631-F-A3-20240221-01	Total Recoverable	Water	6010D	604200

General Chemistry

Analysis Batch: 604299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total/NA	Water	SM 2540C	
240-199896-2	DUP-001-F-A3-20240221-01	Total/NA	Water	SM 2540C	
240-199896-3	EB-001-F-A3-20240221-01	Total/NA	Water	SM 2540C	
MB 240-604299/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-604299/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-199896-1 DU	9631-F-A3-20240221-01	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 604707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total/NA	Water	2320B-1997	
240-199896-2	DUP-001-F-A3-20240221-01	Total/NA	Water	2320B-1997	
240-199896-3	EB-001-F-A3-20240221-01	Total/NA	Water	2320B-1997	
MB 240-604707/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-604707/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-199896-1 DU	9631-F-A3-20240221-01	Total/NA	Water	2320B-1997	

Analysis Batch: 604774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total/NA	Water	300.0	
240-199896-2	DUP-001-F-A3-20240221-01	Total/NA	Water	300.0	
240-199896-3	EB-001-F-A3-20240221-01	Total/NA	Water	300.0	
MB 240-604774/3	Method Blank	Total/NA	Water	300.0	
LCS 240-604774/4	Lab Control Sample	Total/NA	Water	300.0	
240-199896-1 MS	9631-F-A3-20240221-01	Total/NA	Water	300.0	
240-199896-1 MSD	9631-F-A3-20240221-01	Total/NA	Water	300.0	

Leach Batch: 604777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 240-604777/1-A	Method Blank	Total/NA	Water	D3987-06	

Analysis Batch: 604990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-199896-1	9631-F-A3-20240221-01	Total/NA	Water	300.0	
240-199896-2	DUP-001-F-A3-20240221-01	Total/NA	Water	300.0	
240-199896-3	EB-001-F-A3-20240221-01	Total/NA	Water	300.0	
MB 240-604990/3	Method Blank	Total/NA	Water	300.0	
LCS 240-604990/4	Lab Control Sample	Total/NA	Water	300.0	
240-199896-1 MS	9631-F-A3-20240221-01	Total/NA	Water	300.0	
240-199896-1 MSD	9631-F-A3-20240221-01	Total/NA	Water	300.0	

Analysis Batch: 605052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 240-604777/1-A	Method Blank	Total/NA	Water	2320B-1997	604777
MB 240-605052/29	Method Blank	Total/NA	Water	2320B-1997	
MB 240-605052/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-605052/28	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-605052/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-199896-1 DU	9631-F-A3-20240221-01	Total/NA	Water	2320B-1997	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199896-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 9631-F-A3-20240221-01
Lab Sample ID: 240-199896-1

Date Collected: 02/21/24 11:08
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6010D		1	604825	AJC	EET CLE	03/01/24 16:01
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 15:54
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		20	604611	RKT	EET CLE	02/29/24 13:42
Total/NA	Analysis	2320B-1997		1	604707	QUY8	EET CLE	02/29/24 21:22
Total/NA	Analysis	300.0		1000	604774	JWW	EET CLE	03/03/24 17:34
Total/NA	Analysis	300.0		50	604990	JWW	EET CLE	03/05/24 12:49
Total/NA	Analysis	SM 2540C		1	604299	C5SV	EET CLE	02/27/24 09:31

Client Sample ID: DUP-001-F-A3-20240221-01
Lab Sample ID: 240-199896-2

Date Collected: 02/21/24 00:00
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6010D		1	604825	AJC	EET CLE	03/01/24 17:19
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 16:34
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		20	604611	RKT	EET CLE	02/29/24 13:57
Total/NA	Analysis	2320B-1997		1	604707	QUY8	EET CLE	02/29/24 22:11
Total/NA	Analysis	300.0		1000	604774	JWW	EET CLE	03/03/24 18:55
Total/NA	Analysis	300.0		50	604990	JWW	EET CLE	03/05/24 14:30
Total/NA	Analysis	SM 2540C		1	604299	C5SV	EET CLE	02/27/24 09:31

Client Sample ID: EB-001-F-A3-20240221-01
Lab Sample ID: 240-199896-3

Date Collected: 02/21/24 14:30
Matrix: Water
Date Received: 02/23/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6010D		1	604825	AJC	EET CLE	03/01/24 17:23
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604389	RKT	EET CLE	02/27/24 16:37
Total Recoverable	Prep	3005A			604200	BN	EET CLE	02/26/24 14:00
Total Recoverable	Analysis	6020B		1	604611	RKT	EET CLE	02/29/24 14:00
Total/NA	Analysis	2320B-1997		1	604707	QUY8	EET CLE	02/29/24 22:07
Total/NA	Analysis	300.0		1	604774	JWW	EET CLE	03/03/24 12:12
Total/NA	Analysis	300.0		1	604990	JWW	EET CLE	03/05/24 16:11
Total/NA	Analysis	SM 2540C		1	604299	C5SV	EET CLE	02/27/24 09:31

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199896-1
Project/Site: Federal CCR Wells - App III

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-199896-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-01-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740 373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:

Address: 7397 OH-7	Due Date Requested:
City: Cheshire	TAT Requested (days):
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No
Phone: 740-925-3171(Tel)	PO #: 2935505
Email: taylor.huffman@lightstonegen.com	WO #:
Project Name: Federal CCR Wells - App III	Project #: 24019633
Site: Gavin	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
9631-F-A3-20240221-01	2-21-24	1108	G	W	N		1	1	1		
9631-F-A3-20240221-MS-01	2-21-24	1108	G	W	N	Y	1	1	1		
9631-F-A3-20240221-MSD-01	2-21-24	1108	G	W	N	Y	1	1	1		
DUP-001-F-A3-20240221-01	2-21-24	—	G	W	N		1	1	1		
FB-001-F-A3-20240221-01	2-21-24	1430	G	W	N		1	1	1		

240-199896 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	2-22-24 / 0900	KEMRON	Ashley Deal	2/22/24 2:15	ETA
Relinquished by: Ashley Deal	Date/Time: 2-22-24 1700	Company ETA	Received by: [signature]	Date/Time: 2-23-24 800	Company ETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 199896
Barberton Facility

Client Lightstone Site Name

Cooler Received on 2-23-24 Opened on 2-23-24

Cooler unpacked by:

FedEx 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes No
	Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	Yes No
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC316719
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation Date/Time VOAs Frozen:

Login # _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.6	1.6	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

2/23/2024

Login Container Summary Report

240-199896

3/6/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631 F-A3-20240221-01	240 199896-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F A3-20240221-01	240-199896-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A3-20240221-01	240-199896-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A3-20240221-01	240-199896-C-2	Plastic 500ml - with Nitric Acid	<2			
EB-001 F A3 20240221-01	240 199896-C-3	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/8/2024 3:18:15 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-200758-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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4/8/2024 3:18:15 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200758-1
Project/Site: Federal CCR Wells

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-200758-1 — Eurofins Cleveland

Job Narrative
240-200758-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/7/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 prep batch 160-652064:

The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: 96154R-F-20240306-01 (240-200758-1) . Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200758-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200758-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-200758-1	96154R-F-20240306-01	Water	03/06/24 10:15	03/07/24 08:00
240-200758-2	DUP-001-F-20240306-01	Water	03/06/24 00:00	03/07/24 08:00
240-200758-3	2022-05-F-20240306-01	Water	03/06/24 14:39	03/07/24 08:00
240-200758-4	2022-04-F-20240306-01	Water	03/06/24 15:11	03/07/24 08:00
240-200758-5	EB-001-F-20240306-01	Water	03/06/24 15:30	03/07/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200758-1

Client Sample ID: 96154R-F-20240306-01 — Lab Sample ID: 240-200758-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	470		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.54	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	65		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1200		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	100		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	520000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.32	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	610		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	75		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	430		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.8		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	43		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-20240306-01 — Lab Sample ID: 240-200758-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.61	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	3.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	460		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.7	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.61	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	66		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1200		1000	61	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-001-F-20240306-01 (Continued) — Lab Sample ID: 240-200758-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	540000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.46	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	65		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	480		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.7		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	43		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-05-F-20240306-01 — Lab Sample ID: 240-200758-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	360		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	5.7		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	360		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	14000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.33	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	25		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	77		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	940000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	320		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1100		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.6		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	170		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	2200		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-04-F-20240306-01 — Lab Sample ID: 240-200758-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	740		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	100		5.0	2.2	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-04-F-20240306-01 (Continued)
Lab Sample ID: 240-200758-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.4	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.87	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.73	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	21		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	32000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	88000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	34		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	90		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	620		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20240306-01
Lab Sample ID: 240-200758-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96154R-F-20240306-01
Date Collected: 03/06/24 10:15
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		03/08/24 15:30	03/11/24 11:50	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/08/24 15:30	03/11/24 22:52	1
Arsenic	3.3	J	5.0	0.75	ug/L		03/08/24 15:30	03/11/24 22:52	1
Barium	470		5.0	2.2	ug/L		03/08/24 15:30	03/11/24 22:52	1
Beryllium	ND		1.0	0.62	ug/L		03/08/24 15:30	03/11/24 22:52	1
Cadmium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 22:52	1
Calcium	100000		1000	250	ug/L		03/08/24 15:30	03/11/24 22:52	1
Chromium	2.5	J	5.0	1.2	ug/L		03/08/24 15:30	03/11/24 22:52	1
Cobalt	0.54	J	1.0	0.19	ug/L		03/08/24 15:30	03/11/24 22:52	1
Lead	1.0		1.0	0.45	ug/L		03/08/24 15:30	03/11/24 22:52	1
Lithium	65		8.0	1.7	ug/L		03/08/24 15:30	03/11/24 22:52	1
Magnesium	1200		1000	61	ug/L		03/08/24 15:30	03/11/24 22:52	1
Molybdenum	100		5.0	1.1	ug/L		03/08/24 15:30	03/11/24 22:52	1
Potassium	9400		1000	220	ug/L		03/08/24 15:30	03/11/24 22:52	1
Selenium	ND		5.0	0.89	ug/L		03/08/24 15:30	03/11/24 22:52	1
Sodium	520000		1000	330	ug/L		03/08/24 15:30	03/11/24 22:52	1
Thallium	0.32	J	1.0	0.20	ug/L		03/08/24 15:30	03/11/24 22:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/11/24 16:00	03/12/24 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	610		5.0	2.6	mg/L			03/20/24 16:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	75		5.0	2.6	mg/L			03/20/24 16:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	530		5.0	2.6	mg/L			03/20/24 16:54	1
Chloride (EPA 300.0)	430		10	1.3	mg/L			03/09/24 13:32	10
Fluoride (EPA 300.0)	3.8		0.050	0.024	mg/L			03/09/24 13:12	1
Sulfate (EPA 300.0)	43		1.0	0.35	mg/L			03/09/24 13:12	1
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			03/13/24 10:56	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.46		0.431	0.485	1.00	0.224	pCi/L	03/12/24 09:37	04/07/24 12:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.7*		*30 - 110*	*03/12/24 09:37*	*04/07/24 12:30*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.417	U G	0.606	0.607	1.00	1.02	pCi/L	03/12/24 09:45	04/04/24 11:52	1

Client Sample ID: 96154R-F-20240306-01
Date Collected: 03/06/24 10:15
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.7*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:52*	*1*
Y Carrier	*77.0*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:52*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.87**		0.744	0.777	5.00	1.02	pCi/L		04/08/24 14:09	1

Client Sample ID: DUP-001-F-20240306-01
Date Collected: 03/06/24 00:00
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	460		100	57	ug/L		03/08/24 15:30	03/11/24 12:11	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.61	J	2.0	0.57	ug/L		03/08/24 15:30	03/11/24 23:05	1
Arsenic	3.0	J	5.0	0.75	ug/L		03/08/24 15:30	03/11/24 23:05	1
Barium	460		5.0	2.2	ug/L		03/08/24 15:30	03/11/24 23:05	1
Beryllium	ND		1.0	0.62	ug/L		03/08/24 15:30	03/11/24 23:05	1
Cadmium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:05	1
Calcium	100000		1000	250	ug/L		03/08/24 15:30	03/11/24 23:05	1
Chromium	2.7	J	5.0	1.2	ug/L		03/08/24 15:30	03/11/24 23:05	1
Cobalt	0.61	J	1.0	0.19	ug/L		03/08/24 15:30	03/11/24 23:05	1
Lead	1.2		1.0	0.45	ug/L		03/08/24 15:30	03/11/24 23:05	1
Lithium	66		8.0	1.7	ug/L		03/08/24 15:30	03/11/24 23:05	1
Magnesium	1200		1000	61	ug/L		03/08/24 15:30	03/11/24 23:05	1
Molybdenum	110		5.0	1.1	ug/L		03/08/24 15:30	03/11/24 23:05	1
Potassium	9700		1000	220	ug/L		03/08/24 15:30	03/11/24 23:05	1
Selenium	ND		5.0	0.89	ug/L		03/08/24 15:30	03/11/24 23:05	1
Sodium	540000		1000	330	ug/L		03/08/24 15:30	03/11/24 23:05	1
Thallium	0.46	J	1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/11/24 16:00	03/12/24 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	600		5.0	2.6	mg/L			03/20/24 17:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	65		5.0	2.6	mg/L			03/20/24 17:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	530		5.0	2.6	mg/L			03/20/24 17:00	1
Chloride (EPA 300.0)	480		10	1.3	mg/L			03/09/24 14:52	10
Fluoride (EPA 300.0)	3.7		0.050	0.024	mg/L			03/09/24 13:52	1
Sulfate (EPA 300.0)	43		1.0	0.35	mg/L			03/09/24 13:52	1
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			03/13/24 10:56	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.30		0.392	0.443	1.00	0.226	pCi/L	03/12/24 09:37	04/07/24 12:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.4*		*30 - 110*	*03/12/24 09:37*	*04/07/24 12:30*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.973		0.504	0.512	1.00	0.686	pCi/L	03/12/24 09:45	04/04/24 11:52	1

Client Sample ID: DUP-001-F-20240306-01
Date Collected: 03/06/24 00:00
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.4*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:52*	*1*
Y Carrier	*78.9*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:52*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.27**		0.638	0.677	5.00	0.686	pCi/L		04/08/24 14:09	1

Client Sample ID: 2022-05-F-20240306-01
Date Collected: 03/06/24 14:39
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	360		100	57	ug/L		03/08/24 15:30	03/11/24 12:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/08/24 15:30	03/11/24 23:07	1
Arsenic	5.7		5.0	0.75	ug/L		03/08/24 15:30	03/11/24 23:07	1
Barium	360		5.0	2.2	ug/L		03/08/24 15:30	03/11/24 23:07	1
Beryllium	ND		1.0	0.62	ug/L		03/08/24 15:30	03/11/24 23:07	1
Cadmium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:07	1
Calcium	14000		1000	250	ug/L		03/08/24 15:30	03/11/24 23:07	1
Chromium	ND		5.0	1.2	ug/L		03/08/24 15:30	03/11/24 23:07	1
Cobalt	0.33	J	1.0	0.19	ug/L		03/08/24 15:30	03/11/24 23:07	1
Lead	ND		1.0	0.45	ug/L		03/08/24 15:30	03/11/24 23:07	1
Lithium	25		8.0	1.7	ug/L		03/08/24 15:30	03/11/24 23:07	1
Magnesium	4100		1000	61	ug/L		03/08/24 15:30	03/11/24 23:07	1
Molybdenum	77		5.0	1.1	ug/L		03/08/24 15:30	03/11/24 23:07	1
Potassium	2100		1000	220	ug/L		03/08/24 15:30	03/11/24 23:07	1
Selenium	ND		5.0	0.89	ug/L		03/08/24 15:30	03/11/24 23:07	1
Sodium	940000		1000	330	ug/L		03/08/24 15:30	03/11/24 23:07	1
Thallium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/11/24 16:00	03/12/24 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	320		5.0	2.6	mg/L			03/20/24 17:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	320		5.0	2.6	mg/L			03/20/24 17:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/20/24 17:07	1
Chloride (EPA 300.0)	1100		20	2.6	mg/L			03/09/24 15:33	20
Fluoride (EPA 300.0)	2.6		0.10	0.048	mg/L			03/09/24 15:13	2
Sulfate (EPA 300.0)	170		2.0	0.70	mg/L			03/09/24 15:13	2
Total Dissolved Solids (SM 2540C)	2200		40	31	mg/L			03/13/24 10:56	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.469		0.199	0.203	1.00	0.237	pCi/L	03/12/24 09:37	04/07/24 12:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*30 - 110*	*03/12/24 09:37*	*04/07/24 12:30*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.745		0.421	0.426	1.00	0.583	pCi/L	03/12/24 09:45	04/04/24 11:53	1

Client Sample ID: 2022-05-F-20240306-01
Date Collected: 03/06/24 14:39
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-3
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		30 - 110	03/12/24 09:45	04/04/24 11:53	1
Y Carrier	73.3		30 - 110	03/12/24 09:45	04/04/24 11:53	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.21		0.466	0.472	5.00	0.583	pCi/L		04/08/24 14:09	1

Client Sample ID: 2022-04-F-20240306-01
Date Collected: 03/06/24 15:11
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	740		100	57	ug/L		03/08/24 15:30	03/11/24 12:20	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/08/24 15:30	03/11/24 23:10	1
Arsenic	1.3	J	5.0	0.75	ug/L		03/08/24 15:30	03/11/24 23:10	1
Barium	100		5.0	2.2	ug/L		03/08/24 15:30	03/11/24 23:10	1
Beryllium	ND		1.0	0.62	ug/L		03/08/24 15:30	03/11/24 23:10	1
Cadmium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:10	1
Calcium	110000		1000	250	ug/L		03/08/24 15:30	03/11/24 23:10	1
Chromium	2.4	J	5.0	1.2	ug/L		03/08/24 15:30	03/11/24 23:10	1
Cobalt	0.87	J	1.0	0.19	ug/L		03/08/24 15:30	03/11/24 23:10	1
Lead	0.73	J	1.0	0.45	ug/L		03/08/24 15:30	03/11/24 23:10	1
Lithium	21		8.0	1.7	ug/L		03/08/24 15:30	03/11/24 23:10	1
Magnesium	32000		1000	61	ug/L		03/08/24 15:30	03/11/24 23:10	1
Molybdenum	1.3	J	5.0	1.1	ug/L		03/08/24 15:30	03/11/24 23:10	1
Potassium	3600		1000	220	ug/L		03/08/24 15:30	03/11/24 23:10	1
Selenium	ND		5.0	0.89	ug/L		03/08/24 15:30	03/11/24 23:10	1
Sodium	88000		1000	330	ug/L		03/08/24 15:30	03/11/24 23:10	1
Thallium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/11/24 16:00	03/12/24 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			03/20/24 17:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			03/20/24 17:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/20/24 17:16	1
Chloride (EPA 300.0)	34		1.0	0.13	mg/L			03/09/24 12:31	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			03/09/24 12:31	1
Sulfate (EPA 300.0)	90		1.0	0.35	mg/L			03/09/24 12:31	1
Total Dissolved Solids (SM 2540C)	620		10	7.8	mg/L			03/13/24 10:56	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.255		0.144	0.146	1.00	0.172	pCi/L	03/12/24 09:37	04/07/24 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*30 - 110*	*03/12/24 09:37*	*04/07/24 14:08*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00608	U	0.349	0.349	1.00	0.668	pCi/L	03/12/24 09:45	04/04/24 11:53	1

Client Sample ID: 2022-04-F-20240306-01
Date Collected: 03/06/24 15:11
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:53*	*1*
Y Carrier	*77.4*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:53*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.249	U	0.378	0.378	5.00	0.668	pCi/L		04/08/24 14:09	1

Client Sample ID: EB-001-F-20240306-01
Date Collected: 03/06/24 15:30
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-5
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/08/24 15:30	03/11/24 12:32	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/08/24 15:30	03/11/24 23:17	1
Arsenic	ND		5.0	0.75	ug/L		03/08/24 15:30	03/11/24 23:17	1
Barium	ND		5.0	2.2	ug/L		03/08/24 15:30	03/11/24 23:17	1
Beryllium	ND		1.0	0.62	ug/L		03/08/24 15:30	03/11/24 23:17	1
Cadmium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:17	1
Calcium	ND		1000	250	ug/L		03/08/24 15:30	03/11/24 23:17	1
Chromium	ND		5.0	1.2	ug/L		03/08/24 15:30	03/11/24 23:17	1
Cobalt	ND		1.0	0.19	ug/L		03/08/24 15:30	03/11/24 23:17	1
Lead	ND		1.0	0.45	ug/L		03/08/24 15:30	03/11/24 23:17	1
Lithium	ND		8.0	1.7	ug/L		03/08/24 15:30	03/11/24 23:17	1
Magnesium	ND		1000	61	ug/L		03/08/24 15:30	03/11/24 23:17	1
Molybdenum	ND		5.0	1.1	ug/L		03/08/24 15:30	03/11/24 23:17	1
Potassium	ND		1000	220	ug/L		03/08/24 15:30	03/11/24 23:17	1
Selenium	ND		5.0	0.89	ug/L		03/08/24 15:30	03/11/24 23:17	1
Sodium	ND		1000	330	ug/L		03/08/24 15:30	03/11/24 23:17	1
Thallium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 23:17	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/11/24 16:00	03/12/24 11:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/20/24 17:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/20/24 17:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/20/24 17:22	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			03/09/24 11:31	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			03/09/24 11:31	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			03/09/24 11:31	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			03/13/24 10:56	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0518	U	0.0724	0.0725	1.00	0.123	pCi/L	03/12/24 09:37	04/07/24 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*03/12/24 09:37*	*04/07/24 14:08*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.132	U	0.238	0.238	1.00	0.492	pCi/L	03/12/24 09:45	04/04/24 11:53	1

Client Sample ID: EB-001-F-20240306-01
Date Collected: 03/06/24 15:30
Date Received: 03/07/24 08:00

Lab Sample ID: 240-200758-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:53*	*1*
Y Carrier	*78.1*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:53*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0799	U	0.249	0.249	5.00	0.492	pCi/L		04/08/24 14:09	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200758-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-200758-1	96154R-F-20240306-01	72.7
240-200758-2	DUP-001-F-20240306-01	87.4
240-200758-3	2022-05-F-20240306-01	79.9
240-200758-4	2022-04-F-20240306-01	94.3
240-200758-5	EB-001-F-20240306-01	100
LCS 160-652063/2-A	Lab Control Sample	101
MB 160-652063/1-A	Method Blank	97.7

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-200758-1	96154R-F-20240306-01	72.7	77.0
240-200758-2	DUP-001-F-20240306-01	87.4	78.9
240-200758-3	2022-05-F-20240306-01	79.9	73.3
240-200758-4	2022-04-F-20240306-01	94.3	77.4
240-200758-5	EB-001-F-20240306-01	100	78.1
LCS 160-652064/2-A	Lab Control Sample	101	74.8
MB 160-652064/1-A	Method Blank	97.7	75.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-605520/1-A
Matrix: Water
Analysis Batch: 605716

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/08/24 15:30	03/11/24 11:42	1

Lab Sample ID: LCS 240-605520/2-A
Matrix: Water
Analysis Batch: 605716

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	1020		ug/L		102	80 - 120		

Lab Sample ID: 240-200758-1 MS
Matrix: Water
Analysis Batch: 605716

Client Sample ID: 96154R-F-20240306-01
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	450		1000	1470		ug/L		102	75 - 125		

Lab Sample ID: 240-200758-1 MSD
Matrix: Water
Analysis Batch: 605716

Client Sample ID: 96154R-F-20240306-01
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	450		1000	1500		ug/L		105	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-605520/1-A
Matrix: Water
Analysis Batch: 605729

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/08/24 15:30	03/11/24 22:47	1
Arsenic	ND		5.0	0.75	ug/L		03/08/24 15:30	03/11/24 22:47	1
Barium	ND		5.0	2.2	ug/L		03/08/24 15:30	03/11/24 22:47	1
Beryllium	ND		1.0	0.62	ug/L		03/08/24 15:30	03/11/24 22:47	1
Cadmium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 22:47	1
Calcium	ND		1000	250	ug/L		03/08/24 15:30	03/11/24 22:47	1
Chromium	ND		5.0	1.2	ug/L		03/08/24 15:30	03/11/24 22:47	1
Cobalt	ND		1.0	0.19	ug/L		03/08/24 15:30	03/11/24 22:47	1
Lead	ND		1.0	0.45	ug/L		03/08/24 15:30	03/11/24 22:47	1
Lithium	ND		8.0	1.7	ug/L		03/08/24 15:30	03/11/24 22:47	1
Magnesium	ND		1000	61	ug/L		03/08/24 15:30	03/11/24 22:47	1
Molybdenum	ND		5.0	1.1	ug/L		03/08/24 15:30	03/11/24 22:47	1
Potassium	ND		1000	220	ug/L		03/08/24 15:30	03/11/24 22:47	1
Selenium	ND		5.0	0.89	ug/L		03/08/24 15:30	03/11/24 22:47	1
Sodium	ND		1000	330	ug/L		03/08/24 15:30	03/11/24 22:47	1
Thallium	ND		1.0	0.20	ug/L		03/08/24 15:30	03/11/24 22:47	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-605520/2-A ^5
Matrix: Water
Analysis Batch: 605885

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			1000	972		ug/L		97	80 - 120		
Arsenic			2000	1930		ug/L		96	80 - 120		
Barium			2000	1860		ug/L		93	80 - 120		
Beryllium			1000	924		ug/L		92	80 - 120		
Cadmium			1000	953		ug/L		95	80 - 120		
Calcium			50000	48100		ug/L		96	80 - 120		
Chromium			1000	971		ug/L		97	80 - 120		
Cobalt			1000	962		ug/L		96	80 - 120		
Lead			1000	974		ug/L		97	80 - 120		
Lithium			1000	965		ug/L		97	80 - 120		
Magnesium			50000	49400		ug/L		99	80 - 120		
Molybdenum			1000	954		ug/L		95	80 - 120		
Potassium			50000	51200		ug/L		102	80 - 120		
Selenium			2000	1880		ug/L		94	80 - 120		
Sodium			50000	47900		ug/L		96	80 - 120		
Thallium			2000	1910		ug/L		95	80 - 120		

Lab Sample ID: 240-200758-1 MS
Matrix: Water
Analysis Batch: 605729

Client Sample ID: 96154R-F-20240306-01
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		100	98.0		ug/L		98	80 - 120		
Arsenic	3.3	J	1000	973		ug/L		97	80 - 120		
Barium	470		1000	1410		ug/L		94	80 - 120		
Beryllium	ND		500	438		ug/L		88	80 - 120		
Cadmium	ND		500	469		ug/L		94	80 - 120		
Calcium	100000		25000	125000	4	ug/L		88	80 - 120		
Chromium	2.5	J	500	463		ug/L		92	80 - 120		
Cobalt	0.54	J	500	515		ug/L		103	80 - 120		
Lead	1.0		500	498		ug/L		99	80 - 120		
Lithium	65		500	566		ug/L		100	80 - 120		
Magnesium	1200		25000	24100		ug/L		92	80 - 120		
Molybdenum	100		500	599		ug/L		99	80 - 120		
Potassium	9400		25000	32400		ug/L		92	80 - 120		
Selenium	ND		1000	946		ug/L		95	80 - 120		
Sodium	520000		25000	541000	4	ug/L		90	80 - 120		
Thallium	0.32	J	1000	980		ug/L		98	80 - 120		

Lab Sample ID: 240-200758-1 MSD
Matrix: Water
Analysis Batch: 605729

Client Sample ID: 96154R-F-20240306-01
Prep Type: Total Recoverable
Prep Batch: 605520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	98.0		ug/L		98	80 - 120	0	20
Arsenic	3.3	J	1000	964		ug/L		96	80 - 120	1	20
Barium	470		1000	1440		ug/L		97	80 - 120	2	20
Beryllium	ND		500	434		ug/L		87	80 - 120	1	20
Cadmium	ND		500	469		ug/L		94	80 - 120	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-200758-1 MSD — **Client Sample ID: 96154R-F-20240306-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 605729 — **Prep Batch: 605520**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	100000		25000	127000	4	ug/L		96	80 - 120	2	20
Chromium	2.5	J	500	459		ug/L		91	80 - 120	1	20
Cobalt	0.54	J	500	507		ug/L		101	80 - 120	2	20
Lead	1.0		500	490		ug/L		98	80 - 120	2	20
Lithium	65		500	567		ug/L		100	80 - 120	0	20
Magnesium	1200		25000	24000		ug/L		91	80 - 120	0	20
Molybdenum	100		500	596		ug/L		99	80 - 120	1	20
Potassium	9400		25000	32500		ug/L		93	80 - 120	0	20
Selenium	ND		1000	943		ug/L		94	80 - 120	0	20
Sodium	520000		25000	540000	4	ug/L		84	80 - 120	0	20
Thallium	0.32	J	1000	973		ug/L		97	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-605524/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605829 — **Prep Batch: 605524**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/11/24 16:00	03/12/24 10:49	1

Lab Sample ID: LCS 240-605524/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605829 — **Prep Batch: 605524**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.91		ug/L		98	80 - 120

Lab Sample ID: 240-200758-1 MS — **Client Sample ID: 96154R-F-20240306-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605829 — **Prep Batch: 605524**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.05		ug/L		105	80 - 120

Lab Sample ID: 240-200758-1 MSD — **Client Sample ID: 96154R-F-20240306-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 605829 — **Prep Batch: 605524**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.02		ug/L		102	80 - 120	3	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-606922/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/20/24 15:28	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-606922/4
Matrix: Water
Analysis Batch: 606922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/20/24 15:28	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/20/24 15:28	1

Lab Sample ID: LCS 240-606922/3
Matrix: Water
Analysis Batch: 606922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	82.3		mg/L		102	86 - 123		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-605515/3
Matrix: Water
Analysis Batch: 605515

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/09/24 10:51	1
Fluoride	ND		0.050	0.024	mg/L			03/09/24 10:51	1
Sulfate	ND		1.0	0.35	mg/L			03/09/24 10:51	1

Lab Sample ID: LCS 240-605515/4
Matrix: Water
Analysis Batch: 605515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.8		mg/L		102	90 - 110		
Fluoride			2.50	2.46		mg/L		98	90 - 110		
Sulfate			50.0	52.1		mg/L		104	90 - 110		

Lab Sample ID: 240-200758-5 MS
Matrix: Water
Analysis Batch: 605515

Client Sample ID: EB-001-F-20240306-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		50.0	50.6		mg/L		101	80 - 120		
Fluoride	ND		2.50	2.44		mg/L		98	80 - 120		
Sulfate	ND		50.0	51.2		mg/L		102	80 - 120		

Lab Sample ID: 240-200758-5 MSD
Matrix: Water
Analysis Batch: 605515

Client Sample ID: EB-001-F-20240306-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	51.4		mg/L		103	80 - 120	2	15
Fluoride	ND		2.50	2.48		mg/L		99	80 - 120	1	15
Sulfate	ND		50.0	52.0		mg/L		104	80 - 120	2	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-605956/1
Matrix: Water
Analysis Batch: 605956

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/13/24 10:56	1

Lab Sample ID: LCS 240-605956/2
Matrix: Water
Analysis Batch: 605956

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	464		mg/L		92	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-652063/1-A
Matrix: Water
Analysis Batch: 655718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652063

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1797		0.109	0.110	1.00	0.141	pCi/L	03/12/24 09:37	04/07/24 12:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*03/12/24 09:37*	*04/07/24 12:30*	*1*

Lab Sample ID: LCS 160-652063/2-A
Matrix: Water
Analysis Batch: 655718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652063

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	9.004		1.03	1.00	0.170	pCi/L	79	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-652064/1-A
Matrix: Water
Analysis Batch: 655448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652064

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4664	U	0.328	0.330	1.00	0.487	pCi/L	03/12/24 09:45	04/04/24 11:52	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:52*	*1*
Y Carrier	*75.9*		*30 - 110*	*03/12/24 09:45*	*04/04/24 11:52*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-652064/2-A
Matrix: Water
Analysis Batch: 655448

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652064

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.06	10.10		1.35	1.00	0.510	pCi/L	111	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*101*		*30 - 110*
Y Carrier	*74.8*		*30 - 110*

Metals

Prep Batch: 605520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-2	DUP-001-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-3	2022-05-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-4	2022-04-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-5	EB-001-F-20240306-01	Total Recoverable	Water	3005A	
MB 240-605520/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-605520/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-605520/2-A ^5	Lab Control Sample	Total Recoverable	Water	3005A	
240-200758-1 MS	96154R-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-1 MS	96154R-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-1 MSD	96154R-F-20240306-01	Total Recoverable	Water	3005A	
240-200758-1 MSD	96154R-F-20240306-01	Total Recoverable	Water	3005A	

Prep Batch: 605524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	7470A	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	7470A	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	7470A	
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	7470A	
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	7470A	
MB 240-605524/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-605524/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-200758-1 MS	96154R-F-20240306-01	Total/NA	Water	7470A	
240-200758-1 MSD	96154R-F-20240306-01	Total/NA	Water	7470A	

Analysis Batch: 605716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total Recoverable	Water	6010D	605520
240-200758-2	DUP-001-F-20240306-01	Total Recoverable	Water	6010D	605520
240-200758-3	2022-05-F-20240306-01	Total Recoverable	Water	6010D	605520
240-200758-4	2022-04-F-20240306-01	Total Recoverable	Water	6010D	605520
240-200758-5	EB-001-F-20240306-01	Total Recoverable	Water	6010D	605520
MB 240-605520/1-A	Method Blank	Total Recoverable	Water	6010D	605520
LCS 240-605520/2-A	Lab Control Sample	Total Recoverable	Water	6010D	605520
240-200758-1 MS	96154R-F-20240306-01	Total Recoverable	Water	6010D	605520
240-200758-1 MSD	96154R-F-20240306-01	Total Recoverable	Water	6010D	605520

Analysis Batch: 605729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total Recoverable	Water	6020B	605520
240-200758-2	DUP-001-F-20240306-01	Total Recoverable	Water	6020B	605520
240-200758-3	2022-05-F-20240306-01	Total Recoverable	Water	6020B	605520
240-200758-4	2022-04-F-20240306-01	Total Recoverable	Water	6020B	605520
240-200758-5	EB-001-F-20240306-01	Total Recoverable	Water	6020B	605520
MB 240-605520/1-A	Method Blank	Total Recoverable	Water	6020B	605520
240-200758-1 MS	96154R-F-20240306-01	Total Recoverable	Water	6020B	605520
240-200758-1 MSD	96154R-F-20240306-01	Total Recoverable	Water	6020B	605520

Analysis Batch: 605829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	7470A	605524

Metals (Continued)

Analysis Batch: 605829 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	7470A	605524
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	7470A	605524
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	7470A	605524
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	7470A	605524
MB 240-605524/1-A	Method Blank	Total/NA	Water	7470A	605524
LCS 240-605524/2-A	Lab Control Sample	Total/NA	Water	7470A	605524
240-200758-1 MS	96154R-F-20240306-01	Total/NA	Water	7470A	605524
240-200758-1 MSD	96154R-F-20240306-01	Total/NA	Water	7470A	605524

Analysis Batch: 605885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-605520/2-A ^5	Lab Control Sample	Total Recoverable	Water	6020B	605520

General Chemistry

Analysis Batch: 605515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	300.0	
240-200758-1	96154R-F-20240306-01	Total/NA	Water	300.0	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	300.0	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	300.0	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	300.0	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	300.0	
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	300.0	
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	300.0	
MB 240-605515/3	Method Blank	Total/NA	Water	300.0	
LCS 240-605515/4	Lab Control Sample	Total/NA	Water	300.0	
240-200758-5 MS	EB-001-F-20240306-01	Total/NA	Water	300.0	
240-200758-5 MSD	EB-001-F-20240306-01	Total/NA	Water	300.0	

Analysis Batch: 605956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	SM 2540C	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	SM 2540C	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	SM 2540C	
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	SM 2540C	
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	SM 2540C	
MB 240-605956/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-605956/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 606922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	2320B-1997	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	2320B-1997	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	2320B-1997	
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	2320B-1997	
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	2320B-1997	
MB 240-606922/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-606922/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200758-1

Rad

Prep Batch: 652063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	PrecSep-21	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	PrecSep-21	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	PrecSep-21	
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	PrecSep-21	
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	PrecSep-21	
MB 160-652063/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-652063/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 652064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200758-1	96154R-F-20240306-01	Total/NA	Water	PrecSep_0	
240-200758-2	DUP-001-F-20240306-01	Total/NA	Water	PrecSep_0	
240-200758-3	2022-05-F-20240306-01	Total/NA	Water	PrecSep_0	
240-200758-4	2022-04-F-20240306-01	Total/NA	Water	PrecSep_0	
240-200758-5	EB-001-F-20240306-01	Total/NA	Water	PrecSep_0	
MB 160-652064/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-652064/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200758-1

Client Sample ID: 96154R-F-20240306-01

Lab Sample ID: 240-200758-1

Date Collected: 03/06/24 10:15
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6010D		1	605716	KLC	EET CLE	03/11/24 11:50
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6020B		1	605729	AJC	EET CLE	03/11/24 22:52
Total/NA	Prep	7470A			605524	AJC	EET CLE	03/11/24 16:00
Total/NA	Analysis	7470A		1	605829	TQ6W	EET CLE	03/12/24 10:53
Total/NA	Analysis	2320B-1997		1	606922	JMR	EET CLE	03/20/24 16:54
Total/NA	Analysis	300.0		1	605515	JWW	EET CLE	03/09/24 13:12
Total/NA	Analysis	300.0		10	605515	JWW	EET CLE	03/09/24 13:32
Total/NA	Analysis	SM 2540C		1	605956	C5SV	EET CLE	03/13/24 10:56
Total/NA	Prep	PrecSep-21			652063	KAK	EET SL	03/12/24 09:37
Total/NA	Analysis	9315		1	655718	SCB	EET SL	04/07/24 12:30
Total/NA	Prep	PrecSep_0			652064	KAK	EET SL	03/12/24 09:45
Total/NA	Analysis	9320		1	655448	SCB	EET SL	04/04/24 11:52
Total/NA	Analysis	Ra226_Ra228		1	655895	FLC	EET SL	04/08/24 14:09

Client Sample ID: DUP-001-F-20240306-01

Lab Sample ID: 240-200758-2

Date Collected: 03/06/24 00:00
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6010D		1	605716	KLC	EET CLE	03/11/24 12:11
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6020B		1	605729	AJC	EET CLE	03/11/24 23:05
Total/NA	Prep	7470A			605524	AJC	EET CLE	03/11/24 16:00
Total/NA	Analysis	7470A		1	605829	TQ6W	EET CLE	03/12/24 10:59
Total/NA	Analysis	2320B-1997		1	606922	JMR	EET CLE	03/20/24 17:00
Total/NA	Analysis	300.0		1	605515	JWW	EET CLE	03/09/24 13:52
Total/NA	Analysis	300.0		10	605515	JWW	EET CLE	03/09/24 14:52
Total/NA	Analysis	SM 2540C		1	605956	C5SV	EET CLE	03/13/24 10:56
Total/NA	Prep	PrecSep-21			652063	KAK	EET SL	03/12/24 09:37
Total/NA	Analysis	9315		1	655718	SCB	EET SL	04/07/24 12:30
Total/NA	Prep	PrecSep_0			652064	KAK	EET SL	03/12/24 09:45
Total/NA	Analysis	9320		1	655448	SCB	EET SL	04/04/24 11:52
Total/NA	Analysis	Ra226_Ra228		1	655895	FLC	EET SL	04/08/24 14:09

Client Sample ID: 2022-05-F-20240306-01

Lab Sample ID: 240-200758-3

Date Collected: 03/06/24 14:39
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6010D		1	605716	KLC	EET CLE	03/11/24 12:16

Client Sample ID: 2022-05-F-20240306-01
Lab Sample ID: 240-200758-3

Date Collected: 03/06/24 14:39
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6020B		1	605729	AJC	EET CLE	03/11/24 23:07
Total/NA	Prep	7470A			605524	AJC	EET CLE	03/11/24 16:00
Total/NA	Analysis	7470A		1	605829	TQ6W	EET CLE	03/12/24 11:01
Total/NA	Analysis	2320B-1997		1	606922	JMR	EET CLE	03/20/24 17:07
Total/NA	Analysis	300.0		2	605515	JWW	EET CLE	03/09/24 15:13
Total/NA	Analysis	300.0		20	605515	JWW	EET CLE	03/09/24 15:33
Total/NA	Analysis	SM 2540C		1	605956	C5SV	EET CLE	03/13/24 10:56
Total/NA	Prep	PrecSep-21			652063	KAK	EET SL	03/12/24 09:37
Total/NA	Analysis	9315		1	655718	SCB	EET SL	04/07/24 12:30
Total/NA	Prep	PrecSep_0			652064	KAK	EET SL	03/12/24 09:45
Total/NA	Analysis	9320		1	655448	SCB	EET SL	04/04/24 11:53
Total/NA	Analysis	Ra226_Ra228		1	655895	FLC	EET SL	04/08/24 14:09

Client Sample ID: 2022-04-F-20240306-01
Lab Sample ID: 240-200758-4

Date Collected: 03/06/24 15:11
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6010D		1	605716	KLC	EET CLE	03/11/24 12:20
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6020B		1	605729	AJC	EET CLE	03/11/24 23:10
Total/NA	Prep	7470A			605524	AJC	EET CLE	03/11/24 16:00
Total/NA	Analysis	7470A		1	605829	TQ6W	EET CLE	03/12/24 11:03
Total/NA	Analysis	2320B-1997		1	606922	JMR	EET CLE	03/20/24 17:16
Total/NA	Analysis	300.0		1	605515	JWW	EET CLE	03/09/24 12:31
Total/NA	Analysis	SM 2540C		1	605956	C5SV	EET CLE	03/13/24 10:56
Total/NA	Prep	PrecSep-21			652063	KAK	EET SL	03/12/24 09:37
Total/NA	Analysis	9315		1	655717	SCB	EET SL	04/07/24 14:08
Total/NA	Prep	PrecSep_0			652064	KAK	EET SL	03/12/24 09:45
Total/NA	Analysis	9320		1	655448	SCB	EET SL	04/04/24 11:53
Total/NA	Analysis	Ra226_Ra228		1	655895	FLC	EET SL	04/08/24 14:09

Client Sample ID: EB-001-F-20240306-01
Lab Sample ID: 240-200758-5

Date Collected: 03/06/24 15:30
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6010D		1	605716	KLC	EET CLE	03/11/24 12:32
Total Recoverable	Prep	3005A			605520	AJC	EET CLE	03/08/24 15:30
Total Recoverable	Analysis	6020B		1	605729	AJC	EET CLE	03/11/24 23:17

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200758-1
Project/Site: Federal CCR Wells

Client Sample ID: EB-001-F-20240306-01
Lab Sample ID: 240-200758-5

Date Collected: 03/06/24 15:30
Matrix: Water
Date Received: 03/07/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			605524	AJC	EET CLE	03/11/24 16:00
Total/NA	Analysis	7470A		1	605829	TQ6W	EET CLE	03/12/24 11:09
Total/NA	Analysis	2320B-1997		1	606922	JMR	EET CLE	03/20/24 17:22
Total/NA	Analysis	300.0		1	605515	JWW	EET CLE	03/09/24 11:31
Total/NA	Analysis	SM 2540C		1	605956	C5SV	EET CLE	03/13/24 10:56
Total/NA	Prep	PrecSep-21			652063	KAK	EET SL	03/12/24 09:37
Total/NA	Analysis	9315		1	655717	SCB	EET SL	04/07/24 14:08
Total/NA	Prep	PrecSep_0			652064	KAK	EET SL	03/12/24 09:45
Total/NA	Analysis	9320		1	655448	SCB	EET SL	04/04/24 11:53
Total/NA	Analysis	Ra226_Ra228		1	655895	FLC	EET SL	04/08/24 14:09

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200758-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-01-24
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200758-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209 3.8/3.8

eurofins Environment Testing

Client Information	Sampler: Bobby Coste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
6154R-F-20240306-01	3-6-24	1015	G	Water	N		1	1	2	1	1		
DUPed-F-20240306-01	3-6-24	—	G	Water	N		1	1	2	1	1		
2022-05-F-20240306-01	3-6-24	1439	G	Water	N		1	1	2	1	1		
2022-04-F-20240306-01	3-6-24	1511	G	Water	N		1	1	2	1	1		
EB-01-F-20240306-01	3-6-24	1530	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-200758 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
1	Bobby Coste	3-7-24 / 0815	KCMA	Ashley Deal	3/7/24 1:52	ETA
2	Ashley Deal	3-7-24 1700	ETA		3-8-24 800	EETPC
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 200758
Barberton Facility

Client Lightfoot Site Name

Cooler Received on 3-8-24 Opened on 3-8-24

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp 3.8 °C Corrected Cooler Temp 3.8 °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	*Shippers' packing slip attached to the cooler(s)?*	Yes No
4	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	*Were all preserved sample(s) at the correct pH upon receipt?*	Yes No NA pH Strip Lot# ~~HC316719~~ HC329089
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving.

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

3/8/2024

Login Container Summary Report

240-200758

4/8/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
96154R F-20240306-01	240-200758-A 1	Plastic 60 mL - unpreserved				
96154R-F-20240306-01	240-200758-B-1	Plastic 60 mL - unpreserved				
96154R-F-20240306-01	240-200758-C-1	Plastic 500ml - unpreserved				
96154R-F-20240306-01	240-200758 D-1	Plastic 500ml - with Nitric Acid	<2			
96154R-F-20240306-01	240-200758-E-1	Plastic 1 liter - Nitric Acid	<2			
96154R-F-20240306-01	240-200758-F-1	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-20240306-01	240-200758-A-2	Plastic 60 mL - unpreserved				
DUP-001-F-20240306-01	240-200758-B-2	Plastic 60 mL - unpreserved				
DUP-001 F-20240306-01	240-200758-C-2	Plastic 500ml - unpreserved				
DUP-001-F-20240306-01	240-200758-D-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001 F 20240306-01	240-200758-E-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-20240306-01	240-200758-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240306-01	240-200758-A-3	Plastic 60 mL - unpreserved				
2022-05-F-20240306-01	240-200758-B-3	Plastic 60 mL - unpreserved				
2022-05-F-20240306-01	240-200758-C-3	Plastic 500ml - unpreserved				
2022-05-F-20240306-01	240-200758-D-3	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-20240306-01	240-200758-E-3	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240306-01	240-200758 F-3	Plastic 1 liter - Nitric Acid	<2			
2022-04 F-20240306-01	240-200758-A-4	Plastic 60 mL - unpreserved				
2022-04-F-20240306-01	240-200758-B-4	Plastic 60 mL - unpreserved				
2022-04-F-20240306-01	240-200758-C-4	Plastic 500ml - unpreserved				
2022-04-F-20240306-01	240-200758-D-4	Plastic 500ml - with Nitric Acid	<2			
2022-04 F 20240306-01	240-200758-E-4	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-20240306-01	240-200758-F-4	Plastic 1 liter - Nitric Acid	<2			
EB-001 F 20240306-01	240-200758-A-5	Plastic 60 mL - unpreserved				
EB-001-F-20240306-01	240-200758-B-5	Plastic 60 mL - unpreserved				
EB-001 F-20240306-01	240-200758-C-5	Plastic 500ml - unpreserved				
EB-001-F-20240306-01	240-200758-D-5	Plastic 500ml with Nitric Acid	<2			
EB-001 F-20240306-01	240-200758-E-5	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240306-01	240-200758-F-5	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181619.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-200758-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/8/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
96154R-F-20240306-01 (240-200758-1)	3/6/24	10:15 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-001-F-20240306-01 (240-200758-2)	3/6/24	Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-05-F-20240306-01 (240-200758-3)	3/6/24	14:39 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-04-F-20240306-01 (240-200758-4)	3/6/24	15:11 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20240306-01 (240-200758-5)	3/6/24	15:30 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3/8/24 1420	EMC	Sierra Worthington	3/11/24 0830	EMSI2
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-200758-1

Login Number: 200758
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 03/11/24 11:20 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/10/2024 4:03:55 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-200982-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
4/10/2024 4:03:55 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-200982-1 Eurofins Cleveland

Job Narrative
240-200982-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 3/13/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.4°C, 1.9°C and 2.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 prep batch 160-652686:

The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: 2016-07-F-20240307-01 (240-200982-1) . Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-200982-1	2016-07-F-20240307-01	Water	03/07/24 09:41	03/13/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Client Sample ID: 2016-07-F-20240307-01

Lab Sample ID: 240-200982-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	580		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	29000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	8.6		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	4.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	58		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4900		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	86		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	840000	B	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	300		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	29		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1300		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.0		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	17		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	2200		40	31	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2016-07-F-20240307-01
Date Collected: 03/07/24 09:41
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200982-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		03/13/24 14:00	03/14/24 16:08	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 16:22	1
Arsenic	3.6	J	5.0	0.75	ug/L		03/13/24 14:00	03/14/24 16:22	1
Barium	580		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 16:22	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 16:22	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 16:22	1
Calcium	29000		1000	250	ug/L		03/13/24 14:00	03/14/24 16:22	1
Chromium	8.6		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 16:22	1
Cobalt	1.9		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 16:22	1
Lead	4.0		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 16:22	1
Lithium	58		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 16:22	1
Magnesium	4900		1000	61	ug/L		03/13/24 14:00	03/14/24 16:22	1
Molybdenum	86		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 16:22	1
Potassium	4400		1000	220	ug/L		03/13/24 14:00	03/14/24 16:22	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 16:22	1
Sodium	840000	B	1000	330	ug/L		03/13/24 14:00	03/14/24 16:22	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 16:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 11:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	300		5.0	2.6	mg/L			03/13/24 23:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			03/13/24 23:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	29		5.0	2.6	mg/L			03/13/24 23:38	1
Chloride (EPA 300.0)	1300		10	1.3	mg/L			04/03/24 05:28	10
Fluoride (EPA 300.0)	3.0		0.10	0.048	mg/L			04/03/24 05:06	2
Sulfate (EPA 300.0)	17		2.0	0.70	mg/L			04/03/24 05:06	2
Total Dissolved Solids (SM 2540C)	2200		40	31	mg/L			03/14/24 09:57	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.29		0.267	0.291	1.00	0.154	pCi/L	03/15/24 11:15	04/09/24 15:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.0*		*30 - 110*	*03/15/24 11:15*	*04/09/24 15:05*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.86	G	0.840	0.857	1.00	1.12	pCi/L	03/15/24 11:22	03/28/24 12:08	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Client Sample ID: 2016-07-F-20240307-01
Date Collected: 03/07/24 09:41
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200982-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.0*		*30 - 110*	*03/15/24 11:22*	*03/28/24 12:08*	*1*
Y Carrier	*76.6*		*30 - 110*	*03/15/24 11:22*	*03/28/24 12:08*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.16**		0.881	0.905	5.00	1.12	pCi/L		04/10/24 13:59	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
240-200982-1	2016-07-F-20240307-01	99.0							
LCS 160-652685/2-A	Lab Control Sample	102							
MB 160-652685/1-A	Method Blank	102							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
240-200982-1	2016-07-F-20240307-01	99.0	76.6						
LCS 160-652686/2-A	Lab Control Sample	102	80.4						
MB 160-652686/1-A	Method Blank	102	81.1						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200982-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-605944/1-A
Matrix: Water
Analysis Batch: 606182

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/13/24 14:00	03/14/24 14:28	1

Lab Sample ID: LCS 240-605944/2-A
Matrix: Water
Analysis Batch: 606182

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-605944/1-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:41	1
Arsenic	ND		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:41	1
Barium	ND		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:41	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:41	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:41	1
Calcium	ND		1000	250	ug/L		03/13/24 14:00	03/14/24 15:41	1
Chromium	ND		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:41	1
Cobalt	ND		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:41	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:41	1
Lithium	ND		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:41	1
Magnesium	ND		1000	61	ug/L		03/13/24 14:00	03/14/24 15:41	1
Molybdenum	ND		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:41	1
Potassium	ND		1000	220	ug/L		03/13/24 14:00	03/14/24 15:41	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:41	1
Sodium	499	J	1000	330	ug/L		03/13/24 14:00	03/14/24 15:41	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:41	1

Lab Sample ID: LCS 240-605944/3-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	92.9		ug/L		93	80 - 120
Arsenic	1000	931		ug/L		93	80 - 120
Barium	1000	926		ug/L		93	80 - 120
Beryllium	500	472		ug/L		94	80 - 120
Cadmium	500	471		ug/L		94	80 - 120
Calcium	25000	23700		ug/L		95	80 - 120
Chromium	500	475		ug/L		95	80 - 120
Cobalt	500	475		ug/L		95	80 - 120
Lead	500	469		ug/L		94	80 - 120
Lithium	500	489		ug/L		98	80 - 120
Magnesium	25000	24400		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-605944/3-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	467		ug/L		93	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120
Selenium	1000	950		ug/L		95	80 - 120
Sodium	25000	24800		ug/L		99	80 - 120
Thallium	1000	950		ug/L		95	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-605938/1-A
Matrix: Water
Analysis Batch: 606142

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605938

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 10:24	1

Lab Sample ID: LCS 240-605938/2-A
Matrix: Water
Analysis Batch: 606142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605938

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.32		ug/L		86	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-606039/30
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/13/24 19:47	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 19:47	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 19:47	1

Lab Sample ID: MB 240-606039/56
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/13/24 21:45	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 21:45	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 21:45	1

Lab Sample ID: LCS 240-606039/55
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.9		mg/L		103	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-608174/3
Matrix: Water
Analysis Batch: 608174

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/02/24 22:13	1
Fluoride	ND		0.050	0.024	mg/L			04/02/24 22:13	1
Sulfate	ND		1.0	0.35	mg/L			04/02/24 22:13	1

Lab Sample ID: LCS 240-608174/4
Matrix: Water
Analysis Batch: 608174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.69		mg/L		107	90 - 110
Sulfate	50.0	51.5		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-606082/1
Matrix: Water
Analysis Batch: 606082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/14/24 09:57	1

Lab Sample ID: LCS 240-606082/2
Matrix: Water
Analysis Batch: 606082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	488		mg/L		97	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-652685/1-A
Matrix: Water
Analysis Batch: 656034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652685

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02064	U	0.0536	0.0536	1.00	0.0983	pCi/L	03/15/24 11:15	04/09/24 14:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/15/24 11:15*	*04/09/24 14:01*	*1*

Lab Sample ID: LCS 160-652685/2-A
Matrix: Water
Analysis Batch: 656032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652685

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.28		1.05	1.00	0.0693	pCi/L	91	75 - 125

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-652685/2-A
Matrix: Water
Analysis Batch: 656032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652685

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*102*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-652686/1-A
Matrix: Water
Analysis Batch: 654351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652686

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1309	U	0.224	0.224	1.00	0.470	pCi/L	03/15/24 11:22	03/28/24 12:07	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/15/24 11:22*	*03/28/24 12:07*	*1*
Y Carrier	*81.1*		*30 - 110*	*03/15/24 11:22*	*03/28/24 12:07*	*1*

Lab Sample ID: LCS 160-652686/2-A
Matrix: Water
Analysis Batch: 654351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652686

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.08	9.417		1.28	1.00	0.532	pCi/L	104	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*102*		*30 - 110*
Y Carrier	*80.4*		*30 - 110*

Metals

Prep Batch: 605938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	7470A	
MB 240-605938/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-605938/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 605944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total Recoverable	Water	3005A	
MB 240-605944/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-605944/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-605944/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 606142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	7470A	605938
MB 240-605938/1-A	Method Blank	Total/NA	Water	7470A	605938
LCS 240-605938/2-A	Lab Control Sample	Total/NA	Water	7470A	605938

Analysis Batch: 606182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total Recoverable	Water	6010D	605944
MB 240-605944/1-A	Method Blank	Total Recoverable	Water	6010D	605944
LCS 240-605944/2-A	Lab Control Sample	Total Recoverable	Water	6010D	605944

Analysis Batch: 606202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total Recoverable	Water	6020B	605944
MB 240-605944/1-A	Method Blank	Total Recoverable	Water	6020B	605944
LCS 240-605944/3-A	Lab Control Sample	Total Recoverable	Water	6020B	605944

General Chemistry

Analysis Batch: 606039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	2320B-1997	
MB 240-606039/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-606039/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-606039/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 606082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	SM 2540C	
MB 240-606082/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606082/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 608174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	300.0	
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	300.0	
MB 240-608174/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608174/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200982-1
Project/Site: Federal CCR Wells

Rad

Prep Batch: 652685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	PrecSep-21	
MB 160-652685/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-652685/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 652686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200982-1	2016-07-F-20240307-01	Total/NA	Water	PrecSep_0	
MB 160-652686/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-652686/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200982-1
Project/Site: Federal CCR Wells

Client Sample ID: 2016-07-F-20240307-01
Lab Sample ID: 240-200982-1
Date Collected: 03/07/24 09:41
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605944	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 16:08
Total Recoverable	Prep	3005A			605944	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 16:22
Total/NA	Prep	7470A			605938	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 11:07
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/13/24 23:38
Total/NA	Analysis	300.0		2	608174	JWW	EET CLE	04/03/24 05:06
Total/NA	Analysis	300.0		10	608174	JWW	EET CLE	04/03/24 05:28
Total/NA	Analysis	SM 2540C		1	606082	C5SV	EET CLE	03/14/24 09:57
Total/NA	Prep	PrecSep-21			652685	KAK	EET SL	03/15/24 11:15
Total/NA	Analysis	9315		1	656032	SWS	EET SL	04/09/24 15:05
Total/NA	Prep	PrecSep_0			652686	KAK	EET SL	03/15/24 11:22
Total/NA	Analysis	9320		1	654351	SCB	EET SL	03/28/24 12:08
Total/NA	Analysis	Ra226_Ra228		1	656294	FLC	EET SL	04/10/24 13:59

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200982-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200982-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Coste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: ~~Page 1 of 6~~ Pg 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days): 1 DAY			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2016-07-F-20240307-01	3-7-24	0941	G	Water	N		1	1	2	1	1		HOLD
				Water									TME
				Water									Expiring
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-200982 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Bobby Coste	3-12-24 / 0845	Kemper	Ashley Doll	3/12/24 12:00	ETA
Relinquished by: Ashley Doll	Date/Time: 3-12-24 1700	Company: FM	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 200982
Barberton Facility

Client LightStone Site Name

Cooler Received on 3-13-24 Opened on 3-13 24

Cooler unpacked by:

FedEx 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12 Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

4/10/2024

Login # _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	2.8	2.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 23	1.4	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 23	1.9	1.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

3/13/2024

Login Container Summary Report

240-200982

4/10/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2016-07 F-20240307-01	240 200982-A-1	Plastic 60 mL - unpreserved				
2016-07 F-20240307-01	240-200982-B-1	Plastic 60 mL - unpreserved				
2016-07-F-20240307-01	240-200982-C-1	Plastic 500ml - unpreserved				
2016-07-F-20240307-01	240-200982-D-1	Plastic 500ml - with Nitric Acid	<2			
2016-07-F-20240307-01	240-200982-E-1	Plastic 1 liter - Nitric Acid	<2			
2016-07-F-20240307-01	240-200982-F-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181783.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-200982-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/14/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2016-07-F-20240307-01 (240-200982-1)	3/7/24	09:41 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Rachelle Harris	3/13/24 1250	EETNC	M. Pinette		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: MAR 14 2024 0850	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

4/10/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-200982-1

Login Number: 200982
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 03/14/24 11:26 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/11/2024 11:13:41 AM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-200984-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
4/11/2024 11:13:41 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200984-1
Project/Site: Federal CCR Wells

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
240-200984-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 3/13/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.4°C, 1.9°C and 2.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2019-07-F-20240311-01 (240-200984-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-652671

The barium carrier recovery is outside the upper control limit (110%) for the following sample: 2019-07-F-20240311-01 (240-200984-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 prep batch 160-652671:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 2019-07-F-20240311-01 (240-200984-1)

Method 9320_Ra228: Radium 228 prep batch 160-652672

The barium carrier recovery is outside the upper control limit (110%) for the following sample: 2019-07-F-20240311-01 (240-200984-1). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 prep batch 160-652672:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 2019-07-F-20240311-01 (240-200984-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad

Job ID: 240-200984-1 (Continued) Eurofins Cleveland

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200984-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200984-1
Project/Site: Federal CCR Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-200984-1	2019-07-F-20240311-01	Water	03/11/24 14:52	03/13/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200984-1

Client Sample ID: 2019-07-F-20240311-01

Lab Sample ID: 240-200984-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	550		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.74	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Barium	550		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	910000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	8.0		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	300		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	280000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	5.3		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	21000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	10000000		50000	16000	ug/L	50		6020B	Total Recoverable
Thallium	0.33	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	20000		100	13	mg/L	100		300.0	Total/NA
Sulfate	320		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	25000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2019-07-F-20240311-01
Date Collected: 03/11/24 14:52
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200984-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	550		100	57	ug/L		03/13/24 14:00	03/14/24 17:38	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.74	J	2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:11	1
Arsenic	ND		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:11	1
Barium	550		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:11	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:11	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:11	1
Calcium	910000		1000	250	ug/L		03/13/24 14:00	03/14/24 15:11	1
Chromium	2.6	J	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:11	1
Cobalt	8.0		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:11	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:11	1
Lithium	300		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:11	1
Magnesium	280000		1000	61	ug/L		03/13/24 14:00	03/14/24 15:11	1
Molybdenum	5.3		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:11	1
Potassium	21000		1000	220	ug/L		03/13/24 14:00	03/14/24 15:11	1
Selenium	1.4	J	5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:11	1
Sodium	10000000		50000	16000	ug/L		03/13/24 14:00	03/15/24 20:10	50
Thallium	0.33	J	1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	220		5.0	2.6	mg/L			03/21/24 17:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	220		5.0	2.6	mg/L			03/21/24 17:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 17:25	1
Chloride (EPA 300.0)	20000		100	13	mg/L			04/03/24 17:42	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			04/03/24 17:42	100
Sulfate (EPA 300.0)	320		100	35	mg/L			04/03/24 17:42	100
Total Dissolved Solids (SM 2540C)	25000		1000	780	mg/L			03/15/24 12:26	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.742		0.212	0.222	1.00	0.181	pCi/L	03/15/24 10:09	04/09/24 17:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*120*	*X*	*30 - 110*	*03/15/24 10:09*	*04/09/24 17:08*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.30		0.489	0.504	1.00	0.598	pCi/L	03/15/24 10:24	04/05/24 11:35	1

Client Sample ID: 2019-07-F-20240311-01
Date Collected: 03/11/24 14:52
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200984-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*120*	*X*	*30 - 110*	*03/15/24 10:24*	*04/05/24 11:35*	*1*
Y Carrier	*81.5*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:35*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.04**		0.533	0.551	5.00	0.598	pCi/L		04/11/24 10:00	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200984-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-200984-1	2019-07-F-20240311-01	120 X
LCS 160-652671/2-A	Lab Control Sample	94.8
MB 160-652671/1-A	Method Blank	99.5

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-200984-1	2019-07-F-20240311-01	120 X	81.5
LCS 160-652672/2-A	Lab Control Sample	94.8	81.1
MB 160-652672/1-A	Method Blank	99.5	83.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-605983/1-A
Matrix: Water
Analysis Batch: 606182

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/13/24 14:00	03/14/24 17:00	1

Lab Sample ID: LCS 240-605983/2-A
Matrix: Water
Analysis Batch: 606182

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-605983/1-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 14:49	1
Arsenic	ND		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 14:49	1
Barium	ND		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 14:49	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 14:49	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 14:49	1
Calcium	ND		1000	250	ug/L		03/13/24 14:00	03/14/24 14:49	1
Chromium	ND		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 14:49	1
Cobalt	ND		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 14:49	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 14:49	1
Lithium	ND		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 14:49	1
Magnesium	ND		1000	61	ug/L		03/13/24 14:00	03/14/24 14:49	1
Molybdenum	ND		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 14:49	1
Potassium	ND		1000	220	ug/L		03/13/24 14:00	03/14/24 14:49	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 14:49	1
Sodium	ND		1000	330	ug/L		03/13/24 14:00	03/14/24 14:49	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 14:49	1

Lab Sample ID: LCS 240-605983/3-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	95.1		ug/L		95	80 - 120
Arsenic	1000	941		ug/L		94	80 - 120
Barium	1000	942		ug/L		94	80 - 120
Beryllium	500	485		ug/L		97	80 - 120
Cadmium	500	482		ug/L		96	80 - 120
Calcium	25000	23900		ug/L		96	80 - 120
Chromium	500	480		ug/L		96	80 - 120
Cobalt	500	468		ug/L		94	80 - 120
Lead	500	479		ug/L		96	80 - 120
Lithium	500	493		ug/L		99	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-605983/3-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	466		ug/L		93	80 - 120
Potassium	25000	24400		ug/L		97	80 - 120
Selenium	1000	978		ug/L		98	80 - 120
Sodium	25000	24600		ug/L		98	80 - 120
Thallium	1000	967		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-605984/1-A
Matrix: Water
Analysis Batch: 606142

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605984

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:26	1

Lab Sample ID: LCS 240-605984/2-A
Matrix: Water
Analysis Batch: 606142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605984

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.50		ug/L		90	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-607073/4
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 16:57	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 16:57	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 16:57	1

Lab Sample ID: LCS 240-607073/3
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.1		mg/L		102	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-608174/3
Matrix: Water
Analysis Batch: 608174

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/02/24 22:13	1
Fluoride	ND		0.050	0.024	mg/L			04/02/24 22:13	1
Sulfate	ND		1.0	0.35	mg/L			04/02/24 22:13	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-608174/4
Matrix: Water
Analysis Batch: 608174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.7		mg/L		101	90 - 110		
Fluoride			2.50	2.69		mg/L		107	90 - 110		
Sulfate			50.0	51.5		mg/L		103	90 - 110		

Lab Sample ID: 240-200984-1 MS
Matrix: Water
Analysis Batch: 608174

Client Sample ID: 2019-07-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	20000		5000	25400	E	mg/L		109	80 - 120		
Fluoride	ND		250	280		mg/L		112	80 - 120		
Sulfate	320		5000	5870		mg/L		111	80 - 120		

Lab Sample ID: 240-200984-1 MSD
Matrix: Water
Analysis Batch: 608174

Client Sample ID: 2019-07-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	20000		5000	25500	E	mg/L		111	80 - 120	0	15
Fluoride	ND		250	275		mg/L		110	80 - 120	2	15
Sulfate	320		5000	5780		mg/L		109	80 - 120	2	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-606282/1
Matrix: Water
Analysis Batch: 606282

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/15/24 12:26	1

Lab Sample ID: LCS 240-606282/2
Matrix: Water
Analysis Batch: 606282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			505	487		mg/L		96	80 - 120		

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-652671/1-A
Matrix: Water
Analysis Batch: 656033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652671

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2895		0.121	0.124	1.00	0.133	pCi/L	03/15/24 10:09	04/09/24 15:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*03/15/24 10:09*	*04/09/24 15:23*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200984-1

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: LCS 160-652671/2-A
Matrix: Water
Analysis Batch: 656033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652671

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.36		1.14	1.00	0.179	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.8*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-652672/1-A
Matrix: Water
Analysis Batch: 655551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652672

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.09090	U	0.209	0.210	1.00	0.433	pCi/L	03/15/24 10:24	04/05/24 11:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:34*	*1*
Y Carrier	*83.0*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:34*	*1*

Lab Sample ID: LCS 160-652672/2-A
Matrix: Water
Analysis Batch: 655551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652672

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.06	11.01		1.43	1.00	0.495	pCi/L	121	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.8*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

Metals

Prep Batch: 605983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total Recoverable	Water	3005A	
MB 240-605983/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-605983/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-605983/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 605984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	7470A	
MB 240-605984/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-605984/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 606142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	7470A	605984
MB 240-605984/1-A	Method Blank	Total/NA	Water	7470A	605984
LCS 240-605984/2-A	Lab Control Sample	Total/NA	Water	7470A	605984

Analysis Batch: 606182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total Recoverable	Water	6010D	605983
MB 240-605983/1-A	Method Blank	Total Recoverable	Water	6010D	605983
LCS 240-605983/2-A	Lab Control Sample	Total Recoverable	Water	6010D	605983

Analysis Batch: 606202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total Recoverable	Water	6020B	605983
MB 240-605983/1-A	Method Blank	Total Recoverable	Water	6020B	605983
LCS 240-605983/3-A	Lab Control Sample	Total Recoverable	Water	6020B	605983

Analysis Batch: 606375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total Recoverable	Water	6020B	605983

General Chemistry

Analysis Batch: 606282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	SM 2540C	
MB 240-606282/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606282/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 607073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	2320B-1997	
MB 240-607073/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-607073/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 608174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	300.0	
MB 240-608174/3	Method Blank	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 608174 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-608174/4	Lab Control Sample	Total/NA	Water	300.0	
240-200984-1 MS	2019-07-F-20240311-01	Total/NA	Water	300.0	
240-200984-1 MSD	2019-07-F-20240311-01	Total/NA	Water	300.0	

Rad

Prep Batch: 652671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	PrecSep-21	
MB 160-652671/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-652671/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 652672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200984-1	2019-07-F-20240311-01	Total/NA	Water	PrecSep_0	
MB 160-652672/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-652672/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200984-1
Project/Site: Federal CCR Wells

Client Sample ID: 2019-07-F-20240311-01
Lab Sample ID: 240-200984-1

Date Collected: 03/11/24 14:52
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 17:38
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:11
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		50	606375	AJC	EET CLE	03/15/24 20:10
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:38
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 17:25
Total/NA	Analysis	300.0		100	608174	JWW	EET CLE	04/03/24 17:42
Total/NA	Analysis	SM 2540C		1	606282	C5SV	EET CLE	03/15/24 12:26
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656032	SWS	EET SL	04/09/24 17:08
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655551	SCB	EET SL	04/05/24 11:35
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200984-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200984-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

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Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No.: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8 Pg 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

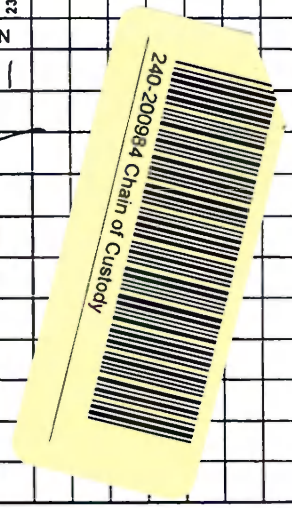
Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2019-07-F-20240311-01	3-11-24	1452	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									



Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1	Bobby Casto	3-12-24 / 0845	Kemlon	Ashley Deal	3/12/24 12:00	ETA
2	Ashley Deal	3/12/24 1200	ETA		3-13-24 800	ETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative — Login #: 200984
Barberton Facility

Client LightStone — Site Name ____ — Cooler unpacked by

Cooler Received on 3-13-24 — Opened on 3-13-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time — Storage Location

Eurofins Cooler # 1C Foam Box Client Cooler Box Other ____

Packing material used: Bubble Wrap Foam Plastic Bag None Other ____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp. ____ °C Corrected Cooler Temp ____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12 Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13 17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? ____	Yes	No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.

Sample(s) ____ were received in a broken container

Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory

Time preserved. ____ Preservative(s) added/Lot number(s) ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____

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Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181783.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-200984-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/26/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2019-07-F-20240311-01 (240-200984-1)	3/11/24	14:52 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Rachelle Hamel	03-13-24 1250	EET MC			
Relinquished by:	Date/Time:	Company	Received by: M. Pinetta	Date/Time: MAR 14 2024 0850	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

4/11/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-200984-1

Login Number: 200984
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 03/14/24 11:26 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/11/2024 11:13:47 AM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-200986-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
4/11/2024 11:13:47 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200986-1
Project/Site: Federal CCR Wells

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-200986-1 — Eurofins Cleveland

Job Narrative
240-200986-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/13/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.4°C, 1.9°C and 2.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200986-1
Project/Site: Federal CCR Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-200986-1	2016-06-F-20240308-01	Water	03/08/24 09:23	03/13/24 08:00
240-200986-2	2016-05-F-20240308-01	Water	03/08/24 09:45	03/13/24 08:00
240-200986-3	MW-20-F-20240308-01	Water	03/08/24 11:18	03/13/24 08:00
240-200986-4	96153R-F-20240308-01	Water	03/08/24 11:52	03/13/24 08:00
240-200986-5	96152-F-20240308-01	Water	03/08/24 13:33	03/13/24 08:00
240-200986-6	DUP-002-F-20240308-01	Water	03/08/24 00:00	03/13/24 08:00
240-200986-7	2022-06-F-20240308-01	Water	03/08/24 14:37	03/13/24 08:00
240-200986-8	96157-F-20240311-01	Water	03/11/24 10:24	03/13/24 08:00
240-200986-9	96158-F-20240311-01	Water	03/11/24 11:22	03/13/24 08:00
240-200986-10	FIELD BLANK-001-F-20240311-01	Water	03/11/24 13:50	03/13/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 2016-06-F-20240308-01 — Lab Sample ID: 240-200986-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	72		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	5400		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	190		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.5		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.1		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	25		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	1600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	70		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	640000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	30		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	650		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	5.6		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	100		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1600		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2016-05-F-20240308-01 — Lab Sample ID: 240-200986-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	88	J	100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	49		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	68000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.0	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.85	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.3		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	13		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.1	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2400		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2016-05-F-20240308-01 (Continued) — Lab Sample ID: 240-200986-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.91	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	62000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	6.0		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.16		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	160		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	460		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-20-F-20240308-01 — Lab Sample ID: 240-200986-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	19		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	480000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	190		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	180		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	110000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	5500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	25000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1.5		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.5		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1500		20	7.0	mg/L	20		300.0	Total/NA
Total Dissolved Solids	2100		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96153R-F-20240308-01 — Lab Sample ID: 240-200986-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	560		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.77	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	0.86	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	28		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	1.4		1.0	0.62	ug/L	1		6020B	Total Recoverable
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.4	J	5.0	1.2	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96153R-F-20240308-01 (Continued)

Lab Sample ID: 240-200986-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	1.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	43		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	22000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.5	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	350000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.74		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	860		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96152-F-20240308-01

Lab Sample ID: 240-200986-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	7.9		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	520		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	43000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	3.0	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.5		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.50	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	81		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2100000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3200		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	0.75		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	71		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5200		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: DUP-002-F-20240308-01

Lab Sample ID: 240-200986-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	480		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	8.2		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	45000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	3.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.56	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	85		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	16000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.7	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2100000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3200		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	0.76		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	75		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5200		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-06-F-20240308-01

Lab Sample ID: 240-200986-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	120		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	310		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	60000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.0	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	12		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	8.2		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	210000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-06-F-20240308-01 (Continued)
Lab Sample ID: 240-200986-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	98		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.87		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	27		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	700		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96157-F-20240311-01
Lab Sample ID: 240-200986-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	140		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	31		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	400		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	54000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.34	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	5.2	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	12000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	7.5		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	240000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.31	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	380		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	380		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	250		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	0.76		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1.9		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	750		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96158-F-20240311-01
Lab Sample ID: 240-200986-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	400		100	57	ug/L	1		6010D	Total Recoverable
Barium	330		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	67000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.71	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	35		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	14000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	9.6		5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96158-F-20240311-01 (Continued)
Lab Sample ID: 240-200986-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	3200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	710000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1500		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.1		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	40		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1900		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELD BLANK-001-F-20240311-01
Lab Sample ID: 240-200986-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	500	J	1000	330	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2016-06-F-20240308-01

Date Collected: 03/08/24 09:23
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	57	ug/L		03/13/24 14:00	03/14/24 17:43	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:14	1
Arsenic	1.5	J	5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:14	1
Barium	72		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:14	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:14	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:14	1
Calcium	5400		1000	250	ug/L		03/13/24 14:00	03/14/24 15:14	1
Chromium	190		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:14	1
Cobalt	1.5		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:14	1
Lead	1.1		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:14	1
Lithium	25		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:14	1
Magnesium	1600		1000	61	ug/L		03/13/24 14:00	03/14/24 15:14	1
Molybdenum	70		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:14	1
Potassium	3600		1000	220	ug/L		03/13/24 14:00	03/14/24 15:14	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:14	1
Sodium	640000		1000	330	ug/L		03/13/24 14:00	03/14/24 15:14	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:14	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	520		5.0	2.6	mg/L			03/13/24 23:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	490		5.0	2.6	mg/L			03/13/24 23:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	30		5.0	2.6	mg/L			03/13/24 23:44	1
Chloride (EPA 300.0)	650		10	1.3	mg/L			04/03/24 04:44	10
Fluoride (EPA 300.0)	5.6		0.050	0.024	mg/L			04/03/24 04:23	1
Sulfate (EPA 300.0)	100		1.0	0.35	mg/L			04/03/24 04:23	1
Total Dissolved Solids (SM 2540C)	1600		20	16	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.419		0.168	0.172	1.00	0.161	pCi/L	03/15/24 10:09	04/09/24 17:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:08*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.397	U	0.455	0.456	1.00	0.746	pCi/L	03/15/24 10:24	04/05/24 11:35	1

Client Sample ID: 2016-06-F-20240308-01
Date Collected: 03/08/24 09:23
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:35*	*1*
Y Carrier	*80.0*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:35*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.816**		0.485	0.487	5.00	0.746	pCi/L		04/11/24 10:00	1

Client Sample ID: 2016-05-F-20240308-01
Date Collected: 03/08/24 09:45
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	88	J	100	57	ug/L		03/13/24 14:00	03/14/24 17:47	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:16	1
Arsenic	2.8	J	5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:16	1
Barium	49		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:16	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:16	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:16	1
Calcium	68000		1000	250	ug/L		03/13/24 14:00	03/14/24 15:16	1
Chromium	4.0	J	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:16	1
Cobalt	0.85	J	1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:16	1
Lead	1.3		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:16	1
Lithium	13		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:16	1
Magnesium	24000		1000	61	ug/L		03/13/24 14:00	03/14/24 15:16	1
Molybdenum	1.1	J	5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:16	1
Potassium	2400		1000	220	ug/L		03/13/24 14:00	03/14/24 15:16	1
Selenium	0.91	J	5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:16	1
Sodium	62000		1000	330	ug/L		03/13/24 14:00	03/14/24 15:16	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	250		5.0	2.6	mg/L			03/13/24 23:51	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	250		5.0	2.6	mg/L			03/13/24 23:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/13/24 23:51	1
Chloride (EPA 300.0)	6.0		1.0	0.13	mg/L			04/03/24 01:07	1
Fluoride (EPA 300.0)	0.16		0.050	0.024	mg/L			04/03/24 01:07	1
Sulfate (EPA 300.0)	160		1.0	0.35	mg/L			04/03/24 01:07	1
Total Dissolved Solids (SM 2540C)	460		10	7.8	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0164	U	0.0827	0.0827	1.00	0.160	pCi/L	03/15/24 10:09	04/09/24 17:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:20*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00936	U	0.302	0.302	1.00	0.565	pCi/L	03/15/24 10:24	04/05/24 11:36	1

Client Sample ID: 2016-05-F-20240308-01
Date Collected: 03/08/24 09:45
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.9*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:36*	*1*
Y Carrier	*81.5*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:36*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0257	U	0.313	0.313	5.00	0.565	pCi/L		04/11/24 10:00	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: MW-20-F-20240308-01

Date Collected: 03/08/24 11:18
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**130**		100	57	ug/L		03/13/24 14:00	03/14/24 17:52	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:19	1
Arsenic	**1.4**	**J**	5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:19	1
Barium	**19**		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:19	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:19	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:19	1
Calcium	**480000**		1000	250	ug/L		03/13/24 14:00	03/14/24 15:19	1
Chromium	ND		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:19	1
Cobalt	**190**		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:19	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:19	1
Lithium	**180**		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:19	1
Magnesium	**110000**		1000	61	ug/L		03/13/24 14:00	03/14/24 15:19	1
Molybdenum	ND		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:19	1
Potassium	**5500**		1000	220	ug/L		03/13/24 14:00	03/14/24 15:19	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:19	1
Sodium	**25000**		1000	330	ug/L		03/13/24 14:00	03/14/24 15:19	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**170**		5.0	2.6	mg/L			03/13/24 23:59	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**170**		5.0	2.6	mg/L			03/13/24 23:59	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/13/24 23:59	1
Chloride (EPA 300.0)	**1.5**		1.0	0.13	mg/L			04/03/24 02:56	1
Fluoride (EPA 300.0)	**1.5**		0.050	0.024	mg/L			04/03/24 02:56	1
Sulfate (EPA 300.0)	**1500**		20	7.0	mg/L			04/05/24 16:25	20
Total Dissolved Solids (SM 2540C)	**2100**		20	16	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0931	U	0.0966	0.0970	1.00	0.153	pCi/L	03/15/24 10:09	04/09/24 17:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.7*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:20*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.146	U	0.305	0.306	1.00	0.535	pCi/L	03/15/24 10:24	04/05/24 11:36	1

Client Sample ID: MW-20-F-20240308-01
Date Collected: 03/08/24 11:18
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.7*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:36*	*1*
Y Carrier	*78.1*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:36*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.239	U	0.320	0.321	5.00	0.535	pCi/L		04/11/24 10:00	1

Client Sample ID: 96153R-F-20240308-01
Date Collected: 03/08/24 11:52
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	560		100	57	ug/L		03/13/24 14:00	03/14/24 17:56	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.77	J	2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:21	1
Arsenic	0.86	J	5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:21	1
Barium	28		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:21	1
Beryllium	1.4		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:21	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:21	1
Calcium	110000		1000	250	ug/L		03/13/24 14:00	03/14/24 15:21	1
Chromium	1.4	J	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:21	1
Cobalt	1.9		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:21	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:21	1
Lithium	43		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:21	1
Magnesium	22000		1000	61	ug/L		03/13/24 14:00	03/14/24 15:21	1
Molybdenum	3.5	J	5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:21	1
Potassium	5600		1000	220	ug/L		03/13/24 14:00	03/14/24 15:21	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:21	1
Sodium	350000		1000	330	ug/L		03/13/24 14:00	03/14/24 15:21	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	270		5.0	2.6	mg/L			03/14/24 00:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			03/14/24 00:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 00:04	1
Chloride (EPA 300.0)	19		1.0	0.13	mg/L			04/03/24 01:29	1
Fluoride (EPA 300.0)	0.74		0.050	0.024	mg/L			04/03/24 01:29	1
Sulfate (EPA 300.0)	860		5.0	1.7	mg/L			04/03/24 02:34	5
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192	U	0.146	0.148	1.00	0.216	pCi/L	03/15/24 10:09	04/09/24 17:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.5*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:20*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.664		0.436	0.440	1.00	0.640	pCi/L	03/15/24 10:24	04/05/24 11:34	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 96153R-F-20240308-01
Date Collected: 03/08/24 11:52
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.5*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:34*	*1*
Y Carrier	*81.1*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:34*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.857**		0.460	0.464	5.00	0.640	pCi/L		04/11/24 10:00	1

Client Sample ID: 96152-F-20240308-01

Lab Sample ID: 240-200986-5

Date Collected: 03/08/24 13:33

Matrix: Water

Date Received: 03/13/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**460**		100	57	ug/L		03/13/24 14:00	03/14/24 18:01	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:24	1
Arsenic	**7.9**		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:24	1
Barium	**520**		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:24	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:24	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:24	1
Calcium	**43000**		1000	250	ug/L		03/13/24 14:00	03/14/24 15:24	1
Chromium	**3.0**	**J**	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:24	1
Cobalt	**2.5**		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:24	1
Lead	**0.50**	**J**	1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:24	1
Lithium	**81**		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:24	1
Magnesium	**15000**		1000	61	ug/L		03/13/24 14:00	03/14/24 15:24	1
Molybdenum	**3.3**	**J**	5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:24	1
Potassium	**8400**		1000	220	ug/L		03/13/24 14:00	03/14/24 15:24	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:24	1
Sodium	**2100000**		10000	3300	ug/L		03/13/24 14:00	03/15/24 20:13	10
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**530**		5.0	2.6	mg/L			03/14/24 00:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**530**		5.0	2.6	mg/L			03/14/24 00:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 00:19	1
Chloride (EPA 300.0)	**3200**		20	2.6	mg/L			04/03/24 08:21	20
Fluoride (EPA 300.0)	**0.75**		0.25	0.12	mg/L			04/03/24 08:00	5
Sulfate (EPA 300.0)	**71**		5.0	1.7	mg/L			04/03/24 08:00	5
Total Dissolved Solids (SM 2540C)	**5200**		50	39	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.06**		0.248	0.266	1.00	0.198	pCi/L	03/15/24 10:09	04/09/24 17:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.7*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:20*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.78**		0.675	0.722	1.00	0.702	pCi/L	03/15/24 10:24	04/05/24 11:37	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 96152-F-20240308-01
Date Collected: 03/08/24 13:33
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.7*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*
Y Carrier	*80.0*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.84**		0.719	0.769	5.00	0.702	pCi/L		04/11/24 10:00	1

Client Sample ID: DUP-002-F-20240308-01
Date Collected: 03/08/24 00:00
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-6
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	480		100	57	ug/L		03/13/24 14:00	03/14/24 18:14	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:26	1
Arsenic	8.2		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:26	1
Barium	540		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:26	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:26	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:26	1
Calcium	45000		1000	250	ug/L		03/13/24 14:00	03/14/24 15:26	1
Chromium	3.5	J	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:26	1
Cobalt	2.7		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:26	1
Lead	0.56	J	1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:26	1
Lithium	85		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:26	1
Magnesium	16000		1000	61	ug/L		03/13/24 14:00	03/14/24 15:26	1
Molybdenum	3.7	J	5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:26	1
Potassium	8600		1000	220	ug/L		03/13/24 14:00	03/14/24 15:26	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:26	1
Sodium	2100000		10000	3300	ug/L		03/13/24 14:00	03/15/24 20:15	10
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:26	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	530		5.0	2.6	mg/L			03/14/24 00:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	530		5.0	2.6	mg/L			03/14/24 00:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 00:25	1
Chloride (EPA 300.0)	3200		20	2.6	mg/L			04/03/24 07:38	20
Fluoride (EPA 300.0)	0.76		0.25	0.12	mg/L			04/03/24 07:16	5
Sulfate (EPA 300.0)	75		5.0	1.7	mg/L			04/03/24 07:16	5
Total Dissolved Solids (SM 2540C)	5200		50	39	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.38		0.272	0.299	1.00	0.165	pCi/L	03/15/24 10:09	04/09/24 17:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:21*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.28		0.589	0.626	1.00	0.593	pCi/L	03/15/24 10:24	04/05/24 11:37	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: DUP-002-F-20240308-01
Date Collected: 03/08/24 00:00
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-6
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*
Y Carrier	*83.7*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.66**		0.649	0.694	5.00	0.593	pCi/L		04/11/24 10:00	1

Client Sample ID: 2022-06-F-20240308-01
Date Collected: 03/08/24 14:37
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-7
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120		100	57	ug/L		03/13/24 14:00	03/14/24 18:18	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:29	1
Arsenic	1.3	J	5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:29	1
Barium	310		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:29	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:29	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:29	1
Calcium	60000		1000	250	ug/L		03/13/24 14:00	03/14/24 15:29	1
Chromium	2.0	J	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:29	1
Cobalt	1.7		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:29	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:29	1
Lithium	12		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:29	1
Magnesium	13000		1000	61	ug/L		03/13/24 14:00	03/14/24 15:29	1
Molybdenum	8.2		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:29	1
Potassium	2100		1000	220	ug/L		03/13/24 14:00	03/14/24 15:29	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:29	1
Sodium	210000		1000	330	ug/L		03/13/24 14:00	03/14/24 15:29	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	510		5.0	2.6	mg/L			03/14/24 00:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	510		5.0	2.6	mg/L			03/14/24 00:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 00:33	1
Chloride (EPA 300.0)	98		1.0	0.13	mg/L			04/03/24 03:39	1
Fluoride (EPA 300.0)	0.87		0.050	0.024	mg/L			04/03/24 03:39	1
Sulfate (EPA 300.0)	27		1.0	0.35	mg/L			04/03/24 03:39	1
Total Dissolved Solids (SM 2540C)	700		10	7.8	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.580		0.185	0.192	1.00	0.159	pCi/L	03/15/24 10:09	04/09/24 17:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:21*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.357	U	0.392	0.393	1.00	0.638	pCi/L	03/15/24 10:24	04/05/24 11:37	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 2022-06-F-20240308-01
Date Collected: 03/08/24 14:37
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-7
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*
Y Carrier	*81.9*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.937**		0.433	0.437	5.00	0.638	pCi/L		04/11/24 10:00	1

Client Sample ID: 96157-F-20240311-01
Date Collected: 03/11/24 10:24
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-8
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	140		100	57	ug/L		03/13/24 14:00	03/14/24 17:09	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 14:54	1
Arsenic	31		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 14:54	1
Barium	400		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 14:54	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 14:54	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 14:54	1
Calcium	54000		1000	250	ug/L		03/13/24 14:00	03/14/24 14:54	1
Chromium	1.5	J	5.0	1.2	ug/L		03/13/24 14:00	03/14/24 14:54	1
Cobalt	0.34	J	1.0	0.19	ug/L		03/13/24 14:00	03/14/24 14:54	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 14:54	1
Lithium	5.2	J	8.0	1.7	ug/L		03/13/24 14:00	03/14/24 14:54	1
Magnesium	12000		1000	61	ug/L		03/13/24 14:00	03/14/24 14:54	1
Molybdenum	7.5		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 14:54	1
Potassium	1500		1000	220	ug/L		03/13/24 14:00	03/14/24 14:54	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 14:54	1
Sodium	240000		1000	330	ug/L		03/13/24 14:00	03/14/24 14:54	1
Thallium	0.31	J	1.0	0.20	ug/L		03/13/24 14:00	03/14/24 14:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	380		5.0	2.6	mg/L			03/14/24 00:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	380		5.0	2.6	mg/L			03/14/24 00:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 00:39	1
Chloride (EPA 300.0)	250		5.0	0.64	mg/L			03/16/24 01:06	5
Fluoride (EPA 300.0)	0.76		0.050	0.024	mg/L			03/16/24 00:45	1
Sulfate (EPA 300.0)	1.9		1.0	0.35	mg/L			03/16/24 00:45	1
Total Dissolved Solids (SM 2540C)	750		10	7.8	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.586		0.198	0.205	1.00	0.191	pCi/L	03/15/24 10:09	04/09/24 17:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*30 - 110*	*03/15/24 10:09*	*04/09/24 17:21*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13		0.549	0.559	1.00	0.754	pCi/L	03/15/24 10:24	04/05/24 11:37	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 96157-F-20240311-01
Date Collected: 03/11/24 10:24
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-8
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*
Y Carrier	*81.1*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:37*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.72**		0.584	0.595	5.00	0.754	pCi/L		04/11/24 10:00	1

Client Sample ID: 96158-F-20240311-01
Date Collected: 03/11/24 11:22
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-9
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	400		100	57	ug/L		03/13/24 14:00	03/14/24 18:22	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:36	1
Arsenic	ND		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:36	1
Barium	330		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:36	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:36	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:36	1
Calcium	67000		1000	250	ug/L		03/13/24 14:00	03/14/24 15:36	1
Chromium	ND		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:36	1
Cobalt	0.71	J	1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:36	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:36	1
Lithium	35		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:36	1
Magnesium	14000		1000	61	ug/L		03/13/24 14:00	03/14/24 15:36	1
Molybdenum	9.6		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:36	1
Potassium	3200		1000	220	ug/L		03/13/24 14:00	03/14/24 15:36	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:36	1
Sodium	710000		1000	330	ug/L		03/13/24 14:00	03/14/24 15:36	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:36	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	340		5.0	2.6	mg/L			03/14/24 00:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	340		5.0	2.6	mg/L			03/14/24 00:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 00:52	1
Chloride (EPA 300.0)	1500		10	1.3	mg/L			04/03/24 06:55	10
Fluoride (EPA 300.0)	1.1		0.10	0.048	mg/L			04/03/24 05:49	2
Sulfate (EPA 300.0)	40		2.0	0.70	mg/L			04/03/24 05:49	2
Total Dissolved Solids (SM 2540C)	1900		40	31	mg/L			03/15/24 12:26	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.641		0.196	0.204	1.00	0.187	pCi/L	03/15/24 10:09	04/09/24 19:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*03/15/24 10:09*	*04/09/24 19:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.04		0.576	0.606	1.00	0.622	pCi/L	03/15/24 10:24	04/05/24 11:38	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 96158-F-20240311-01
Date Collected: 03/11/24 11:22
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-9
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:38*	*1*
Y Carrier	*83.7*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.68**		0.608	0.639	5.00	0.622	pCi/L		04/11/24 10:00	1

Client Sample ID: FIELD BLANK-001-F-20240311-01
Date Collected: 03/11/24 13:50
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-10
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/13/24 14:00	03/14/24 18:27	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 15:39	1
Arsenic	ND		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 15:39	1
Barium	ND		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 15:39	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 15:39	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:39	1
Calcium	ND		1000	250	ug/L		03/13/24 14:00	03/14/24 15:39	1
Chromium	ND		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 15:39	1
Cobalt	ND		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 15:39	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 15:39	1
Lithium	ND		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 15:39	1
Magnesium	ND		1000	61	ug/L		03/13/24 14:00	03/14/24 15:39	1
Molybdenum	ND		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 15:39	1
Potassium	ND		1000	220	ug/L		03/13/24 14:00	03/14/24 15:39	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 15:39	1
Sodium	**500**	**J**	1000	330	ug/L		03/13/24 14:00	03/14/24 15:39	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 15:39	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 01:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 01:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/14/24 01:00	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/03/24 20:31	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/03/24 20:31	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/03/24 20:31	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			03/15/24 09:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.157**		0.0961	0.0971	1.00	0.128	pCi/L	03/15/24 10:09	04/09/24 19:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/15/24 10:09*	*04/09/24 19:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0625	U	0.246	0.246	1.00	0.447	pCi/L	03/15/24 10:24	04/05/24 11:38	1

Client Sample ID: FIELD BLANK-001-F-20240311-01
Date Collected: 03/11/24 13:50
Date Received: 03/13/24 08:00

Lab Sample ID: 240-200986-10
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:38*	*1*
Y Carrier	*82.2*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:38*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.219	U	0.264	0.264	5.00	0.447	pCi/L		04/11/24 10:00	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200986-1
Project/Site: Federal CCR Wells

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-200986-1	2016-06-F-20240308-01	85.8
240-200986-2	2016-05-F-20240308-01	86.9
240-200986-3	MW-20-F-20240308-01	90.7
240-200986-4	96153R-F-20240308-01	92.5
240-200986-5	96152-F-20240308-01	98.7
240-200986-6	DUP-002-F-20240308-01	97.7
240-200986-7	2022-06-F-20240308-01	97.9
240-200986-8	96157-F-20240311-01	89.2
240-200986-8 MS	96157-F-20240311-01	92.8
240-200986-8 MSD	96157-F-20240311-01	93.3
240-200986-9	96158-F-20240311-01	97.7
240-200986-10	FIELD BLANK-001-F-20240311-01	102
LCS 160-652671/2-A	Lab Control Sample	94.8
MB 160-652671/1-A	Method Blank	99.5

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-200986-1	2016-06-F-20240308-01	85.8	80.0
240-200986-2	2016-05-F-20240308-01	86.9	81.5
240-200986-3	MW-20-F-20240308-01	90.7	78.1
240-200986-4	96153R-F-20240308-01	92.5	81.1
240-200986-5	96152-F-20240308-01	98.7	80.0
240-200986-6	DUP-002-F-20240308-01	97.7	83.7
240-200986-7	2022-06-F-20240308-01	97.9	81.9
240-200986-8	96157-F-20240311-01	89.2	81.1
240-200986-8 MS	96157-F-20240311-01	92.8	84.5
240-200986-8 MSD	96157-F-20240311-01	93.3	82.2
240-200986-9	96158-F-20240311-01	97.7	83.7
240-200986-10	FIELD BLANK-001-F-20240311-01	102	82.2
LCS 160-652672/2-A	Lab Control Sample	94.8	81.1
MB 160-652672/1-A	Method Blank	99.5	83.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-605983/1-A
Matrix: Water
Analysis Batch: 606182

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/13/24 14:00	03/14/24 17:00	1

Lab Sample ID: LCS 240-605983/2-A
Matrix: Water
Analysis Batch: 606182

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	1010		ug/L		101	80 - 120		

Lab Sample ID: 240-200986-8 MS
Matrix: Water
Analysis Batch: 606182

Client Sample ID: 96157-F-20240311-01
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	140		1000	1170		ug/L		103	75 - 125		

Lab Sample ID: 240-200986-8 MSD
Matrix: Water
Analysis Batch: 606182

Client Sample ID: 96157-F-20240311-01
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	140		1000	1100		ug/L		96	75 - 125	6	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-605983/1-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/13/24 14:00	03/14/24 14:49	1
Arsenic	ND		5.0	0.75	ug/L		03/13/24 14:00	03/14/24 14:49	1
Barium	ND		5.0	2.2	ug/L		03/13/24 14:00	03/14/24 14:49	1
Beryllium	ND		1.0	0.62	ug/L		03/13/24 14:00	03/14/24 14:49	1
Cadmium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 14:49	1
Calcium	ND		1000	250	ug/L		03/13/24 14:00	03/14/24 14:49	1
Chromium	ND		5.0	1.2	ug/L		03/13/24 14:00	03/14/24 14:49	1
Cobalt	ND		1.0	0.19	ug/L		03/13/24 14:00	03/14/24 14:49	1
Lead	ND		1.0	0.45	ug/L		03/13/24 14:00	03/14/24 14:49	1
Lithium	ND		8.0	1.7	ug/L		03/13/24 14:00	03/14/24 14:49	1
Magnesium	ND		1000	61	ug/L		03/13/24 14:00	03/14/24 14:49	1
Molybdenum	ND		5.0	1.1	ug/L		03/13/24 14:00	03/14/24 14:49	1
Potassium	ND		1000	220	ug/L		03/13/24 14:00	03/14/24 14:49	1
Selenium	ND		5.0	0.89	ug/L		03/13/24 14:00	03/14/24 14:49	1
Sodium	ND		1000	330	ug/L		03/13/24 14:00	03/14/24 14:49	1
Thallium	ND		1.0	0.20	ug/L		03/13/24 14:00	03/14/24 14:49	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-605983/3-A
Matrix: Water
Analysis Batch: 606202

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	95.1		ug/L		95	80 - 120
Arsenic	1000	941		ug/L		94	80 - 120
Barium	1000	942		ug/L		94	80 - 120
Beryllium	500	485		ug/L		97	80 - 120
Cadmium	500	482		ug/L		96	80 - 120
Calcium	25000	23900		ug/L		96	80 - 120
Chromium	500	480		ug/L		96	80 - 120
Cobalt	500	468		ug/L		94	80 - 120
Lead	500	479		ug/L		96	80 - 120
Lithium	500	493		ug/L		99	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	466		ug/L		93	80 - 120
Potassium	25000	24400		ug/L		97	80 - 120
Selenium	1000	978		ug/L		98	80 - 120
Sodium	25000	24600		ug/L		98	80 - 120
Thallium	1000	967		ug/L		97	80 - 120

Lab Sample ID: 240-200986-8 MS
Matrix: Water
Analysis Batch: 606202

Client Sample ID: 96157-F-20240311-01
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	93.1		ug/L		93	80 - 120
Arsenic	31		1000	980		ug/L		95	80 - 120
Barium	400		1000	1310		ug/L		91	80 - 120
Beryllium	ND		500	471		ug/L		94	80 - 120
Cadmium	ND		500	465		ug/L		93	80 - 120
Calcium	54000		25000	73900		ug/L		82	80 - 120
Chromium	1.5	J	500	471		ug/L		94	80 - 120
Cobalt	0.34	J	500	475		ug/L		95	80 - 120
Lead	ND		500	464		ug/L		93	80 - 120
Lithium	5.2	J	500	487		ug/L		96	80 - 120
Magnesium	12000		25000	34600		ug/L		92	80 - 120
Molybdenum	7.5		500	492		ug/L		97	80 - 120
Potassium	1500		25000	25200		ug/L		95	80 - 120
Selenium	ND		1000	962		ug/L		96	80 - 120
Sodium	240000		25000	247000	4	ug/L		39	80 - 120
Thallium	0.31	J	1000	937		ug/L		94	80 - 120

Lab Sample ID: 240-200986-8 MSD
Matrix: Water
Analysis Batch: 606202

Client Sample ID: 96157-F-20240311-01
Prep Type: Total Recoverable
Prep Batch: 605983

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	96.2		ug/L		96	80 - 120	3	20
Arsenic	31		1000	1010		ug/L		98	80 - 120	3	20
Barium	400		1000	1350		ug/L		95	80 - 120	3	20
Beryllium	ND		500	490		ug/L		98	80 - 120	4	20
Cadmium	ND		500	482		ug/L		96	80 - 120	4	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-200986-8 MSD — **Client Sample ID: 96157-F-20240311-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 606202 — **Prep Batch: 605983**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	54000		25000	75800		ug/L		89	80 - 120	2	20
Chromium	1.5	J	500	485		ug/L		97	80 - 120	3	20
Cobalt	0.34	J	500	486		ug/L		97	80 - 120	2	20
Lead	ND		500	476		ug/L		95	80 - 120	3	20
Lithium	5.2	J	500	504		ug/L		100	80 - 120	3	20
Magnesium	12000		25000	35400		ug/L		95	80 - 120	2	20
Molybdenum	7.5		500	503		ug/L		99	80 - 120	2	20
Potassium	1500		25000	25800		ug/L		97	80 - 120	3	20
Selenium	ND		1000	988		ug/L		99	80 - 120	3	20
Sodium	240000		25000	253000	4	ug/L		60	80 - 120	2	20
Thallium	0.31	J	1000	965		ug/L		97	80 - 120	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-605984/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606142 — **Prep Batch: 605984**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/13/24 14:00	03/14/24 12:26	1

Lab Sample ID: LCS 240-605984/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606142 — **Prep Batch: 605984**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.50		ug/L		90	80 - 120

Lab Sample ID: 240-200986-8 MS — **Client Sample ID: 96157-F-20240311-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606142 — **Prep Batch: 605984**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	F1	1.00	0.729	F1	ug/L		73	80 - 120

Lab Sample ID: 240-200986-8 MSD — **Client Sample ID: 96157-F-20240311-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606142 — **Prep Batch: 605984**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	1.00	0.696	F1	ug/L		70	80 - 120	5	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-606039/30 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 606039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/13/24 19:47	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-606039/30
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 19:47	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 19:47	1

Lab Sample ID: MB 240-606039/56
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/13/24 21:45	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 21:45	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/13/24 21:45	1

Lab Sample ID: MB 240-606039/83
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/14/24 00:15	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/14/24 00:15	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/14/24 00:15	1

Lab Sample ID: LCS 240-606039/55
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	82.9		mg/L		103	86 - 123		

Lab Sample ID: LCS 240-606039/82
Matrix: Water
Analysis Batch: 606039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	82.7		mg/L		103	86 - 123		

Lab Sample ID: 240-200986-8 DU
Matrix: Water
Analysis Batch: 606039

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	380			371		mg/L				2	20
Bicarbonate Alkalinity as CaCO3	380			371		mg/L				2	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-606257/3
Matrix: Water
Analysis Batch: 606257

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/15/24 19:23	1
Fluoride	ND		0.050	0.024	mg/L			03/15/24 19:23	1
Sulfate	ND		1.0	0.35	mg/L			03/15/24 19:23	1

Lab Sample ID: LCS 240-606257/4
Matrix: Water
Analysis Batch: 606257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	52.1		mg/L		104	90 - 110
Fluoride	2.50	2.44		mg/L		98	90 - 110
Sulfate	50.0	53.7		mg/L		107	90 - 110

Lab Sample ID: MB 240-608174/3
Matrix: Water
Analysis Batch: 608174

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/02/24 22:13	1
Fluoride	ND		0.050	0.024	mg/L			04/02/24 22:13	1
Sulfate	ND		1.0	0.35	mg/L			04/02/24 22:13	1

Lab Sample ID: LCS 240-608174/4
Matrix: Water
Analysis Batch: 608174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.69		mg/L		107	90 - 110
Sulfate	50.0	51.5		mg/L		103	90 - 110

Lab Sample ID: 240-200986-8 MS
Matrix: Water
Analysis Batch: 608174

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.84		2.50	3.53		mg/L		108	80 - 120
Sulfate	1.7		50.0	54.3		mg/L		105	80 - 120

Lab Sample ID: 240-200986-8 MS
Matrix: Water
Analysis Batch: 608174

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250		250	505		mg/L		102	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-200986-8 MSD
Matrix: Water
Analysis Batch: 608174

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.84		2.50	3.55		mg/L		109	80 - 120	1	15
Sulfate	1.7		50.0	54.8		mg/L		106	80 - 120	1	15

Lab Sample ID: 240-200986-8 MSD
Matrix: Water
Analysis Batch: 608174

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250		250	518		mg/L		107	80 - 120	3	15

Lab Sample ID: MB 240-608531/3
Matrix: Water
Analysis Batch: 608531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/05/24 10:59	1
Fluoride	ND		0.050	0.024	mg/L			04/05/24 10:59	1
Sulfate	ND		1.0	0.35	mg/L			04/05/24 10:59	1

Lab Sample ID: LCS 240-608531/4
Matrix: Water
Analysis Batch: 608531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.9		mg/L		102	90 - 110
Fluoride	2.50	2.68		mg/L		107	90 - 110
Sulfate	50.0	51.8		mg/L		104	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-606242/1
Matrix: Water
Analysis Batch: 606242

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/15/24 09:41	1

Lab Sample ID: LCS 240-606242/2
Matrix: Water
Analysis Batch: 606242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	483		mg/L		96	80 - 120

Lab Sample ID: 240-200986-8 DU
Matrix: Water
Analysis Batch: 606242

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	750		731		mg/L		2	20

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 240-606282/1
Matrix: Water
Analysis Batch: 606282

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/15/24 12:26	1

Lab Sample ID: LCS 240-606282/2
Matrix: Water
Analysis Batch: 606282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	487		mg/L		96	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-652671/1-A
Matrix: Water
Analysis Batch: 656033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652671

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2895		0.121	0.124	1.00	0.133	pCi/L	03/15/24 10:09	04/09/24 15:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*03/15/24 10:09*	*04/09/24 15:23*	*1*

Lab Sample ID: LCS 160-652671/2-A
Matrix: Water
Analysis Batch: 656033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652671

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.36		1.14	1.00	0.179	pCi/L	91	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.8*		*30 - 110*

Lab Sample ID: 240-200986-8 MS
Matrix: Water
Analysis Batch: 656033

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA
Prep Batch: 652671

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	0.586		15.0	13.06		1.45	1.00	0.240	pCi/L	83	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.8*		*30 - 110*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: 240-200986-8 MSD
Matrix: Water
Analysis Batch: 656034

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA
Prep Batch: 652671

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.586		15.0	15.41		1.64	1.00	0.195	pCi/L	99	60 - 140	0.76	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.3*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-652672/1-A
Matrix: Water
Analysis Batch: 655551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652672

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.09090	U	0.209	0.210	1.00	0.433	pCi/L	03/15/24 10:24	04/05/24 11:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:34*	*1*
Y Carrier	*83.0*		*30 - 110*	*03/15/24 10:24*	*04/05/24 11:34*	*1*

Lab Sample ID: LCS 160-652672/2-A
Matrix: Water
Analysis Batch: 655551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652672

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.06	11.01		1.43	1.00	0.495	pCi/L	121	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.8*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

Lab Sample ID: 240-200986-8 MS
Matrix: Water
Analysis Batch: 655506

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA
Prep Batch: 652672

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	1.13		12.0	15.35		1.98	1.00	0.730	pCi/L	118	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.8*		*30 - 110*
Y Carrier	*84.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-200986-8 MSD
Matrix: Water
Analysis Batch: 655506

Client Sample ID: 96157-F-20240311-01
Prep Type: Total/NA
Prep Batch: 652672

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	1.13		12.0	15.95		2.04	1.00	0.611	pCi/L	123	60 - 140	0.15	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.3*		*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Metals

Prep Batch: 605983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-2	2016-05-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-3	MW-20-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-4	96153R-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-5	96152-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-6	DUP-002-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-7	2022-06-F-20240308-01	Total Recoverable	Water	3005A	
240-200986-8	96157-F-20240311-01	Total Recoverable	Water	3005A	
240-200986-9	96158-F-20240311-01	Total Recoverable	Water	3005A	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total Recoverable	Water	3005A	
MB 240-605983/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-605983/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-605983/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-200986-8 MS	96157-F-20240311-01	Total Recoverable	Water	3005A	
240-200986-8 MS	96157-F-20240311-01	Total Recoverable	Water	3005A	
240-200986-8 MSD	96157-F-20240311-01	Total Recoverable	Water	3005A	
240-200986-8 MSD	96157-F-20240311-01	Total Recoverable	Water	3005A	

Prep Batch: 605984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	7470A	
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	7470A	
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	7470A	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	7470A	
240-200986-5	96152-F-20240308-01	Total/NA	Water	7470A	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	7470A	
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	7470A	
240-200986-8	96157-F-20240311-01	Total/NA	Water	7470A	
240-200986-9	96158-F-20240311-01	Total/NA	Water	7470A	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	7470A	
MB 240-605984/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-605984/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-200986-8 MS	96157-F-20240311-01	Total/NA	Water	7470A	
240-200986-8 MSD	96157-F-20240311-01	Total/NA	Water	7470A	

Analysis Batch: 606142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-4	96153R-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-5	96152-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	7470A	605984
240-200986-8	96157-F-20240311-01	Total/NA	Water	7470A	605984
240-200986-9	96158-F-20240311-01	Total/NA	Water	7470A	605984
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	7470A	605984
MB 240-605984/1-A	Method Blank	Total/NA	Water	7470A	605984
LCS 240-605984/2-A	Lab Control Sample	Total/NA	Water	7470A	605984
240-200986-8 MS	96157-F-20240311-01	Total/NA	Water	7470A	605984
240-200986-8 MSD	96157-F-20240311-01	Total/NA	Water	7470A	605984

Metals

Analysis Batch: 606182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-2	2016-05-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-3	MW-20-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-4	96153R-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-5	96152-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-6	DUP-002-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-7	2022-06-F-20240308-01	Total Recoverable	Water	6010D	605983
240-200986-8	96157-F-20240311-01	Total Recoverable	Water	6010D	605983
240-200986-9	96158-F-20240311-01	Total Recoverable	Water	6010D	605983
240-200986-10	FIELD BLANK-001-F-20240311-01	Total Recoverable	Water	6010D	605983
MB 240-605983/1-A	Method Blank	Total Recoverable	Water	6010D	605983
LCS 240-605983/2-A	Lab Control Sample	Total Recoverable	Water	6010D	605983
240-200986-8 MS	96157-F-20240311-01	Total Recoverable	Water	6010D	605983
240-200986-8 MSD	96157-F-20240311-01	Total Recoverable	Water	6010D	605983

Analysis Batch: 606202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-2	2016-05-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-3	MW-20-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-4	96153R-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-5	96152-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-6	DUP-002-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-7	2022-06-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-8	96157-F-20240311-01	Total Recoverable	Water	6020B	605983
240-200986-9	96158-F-20240311-01	Total Recoverable	Water	6020B	605983
240-200986-10	FIELD BLANK-001-F-20240311-01	Total Recoverable	Water	6020B	605983
MB 240-605983/1-A	Method Blank	Total Recoverable	Water	6020B	605983
LCS 240-605983/3-A	Lab Control Sample	Total Recoverable	Water	6020B	605983
240-200986-8 MS	96157-F-20240311-01	Total Recoverable	Water	6020B	605983
240-200986-8 MSD	96157-F-20240311-01	Total Recoverable	Water	6020B	605983

Analysis Batch: 606375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-5	96152-F-20240308-01	Total Recoverable	Water	6020B	605983
240-200986-6	DUP-002-F-20240308-01	Total Recoverable	Water	6020B	605983

General Chemistry

Analysis Batch: 606039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-5	96152-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	2320B-1997	
240-200986-8	96157-F-20240311-01	Total/NA	Water	2320B-1997	
240-200986-9	96158-F-20240311-01	Total/NA	Water	2320B-1997	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 606039 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-606039/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-606039/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-606039/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-606039/55	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-606039/82	Lab Control Sample	Total/NA	Water	2320B-1997	
240-200986-8 DU	96157-F-20240311-01	Total/NA	Water	2320B-1997	

Analysis Batch: 606242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-5	96152-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	SM 2540C	
240-200986-8	96157-F-20240311-01	Total/NA	Water	SM 2540C	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	SM 2540C	
MB 240-606242/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606242/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-200986-8 DU	96157-F-20240311-01	Total/NA	Water	SM 2540C	

Analysis Batch: 606257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-8	96157-F-20240311-01	Total/NA	Water	300.0	
240-200986-8	96157-F-20240311-01	Total/NA	Water	300.0	
MB 240-606257/3	Method Blank	Total/NA	Water	300.0	
LCS 240-606257/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 606282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-9	96158-F-20240311-01	Total/NA	Water	SM 2540C	
MB 240-606282/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606282/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 608174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	300.0	
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	300.0	
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	300.0	
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	300.0	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	300.0	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	300.0	
240-200986-5	96152-F-20240308-01	Total/NA	Water	300.0	
240-200986-5	96152-F-20240308-01	Total/NA	Water	300.0	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	300.0	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	300.0	
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	300.0	
240-200986-9	96158-F-20240311-01	Total/NA	Water	300.0	
240-200986-9	96158-F-20240311-01	Total/NA	Water	300.0	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 608174 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-608174/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608174/4	Lab Control Sample	Total/NA	Water	300.0	
240-200986-8 MS	96157-F-20240311-01	Total/NA	Water	300.0	
240-200986-8 MS	96157-F-20240311-01	Total/NA	Water	300.0	
240-200986-8 MSD	96157-F-20240311-01	Total/NA	Water	300.0	
240-200986-8 MSD	96157-F-20240311-01	Total/NA	Water	300.0	

Analysis Batch: 608531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	300.0	
MB 240-608531/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608531/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 652671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-5	96152-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	PrecSep-21	
240-200986-8	96157-F-20240311-01	Total/NA	Water	PrecSep-21	
240-200986-9	96158-F-20240311-01	Total/NA	Water	PrecSep-21	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	PrecSep-21	
MB 160-652671/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-652671/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-200986-8 MS	96157-F-20240311-01	Total/NA	Water	PrecSep-21	
240-200986-8 MSD	96157-F-20240311-01	Total/NA	Water	PrecSep-21	

Prep Batch: 652672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200986-1	2016-06-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-2	2016-05-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-3	MW-20-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-4	96153R-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-5	96152-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-6	DUP-002-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-7	2022-06-F-20240308-01	Total/NA	Water	PrecSep_0	
240-200986-8	96157-F-20240311-01	Total/NA	Water	PrecSep_0	
240-200986-9	96158-F-20240311-01	Total/NA	Water	PrecSep_0	
240-200986-10	FIELD BLANK-001-F-20240311-01	Total/NA	Water	PrecSep_0	
MB 160-652672/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-652672/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-200986-8 MS	96157-F-20240311-01	Total/NA	Water	PrecSep_0	
240-200986-8 MSD	96157-F-20240311-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 2016-06-F-20240308-01

Lab Sample ID: 240-200986-1

Date Collected: 03/08/24 09:23
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 17:43
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:14
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:41
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/13/24 23:44
Total/NA	Analysis	300.0		1	608174	JWW	EET CLE	04/03/24 04:23
Total/NA	Analysis	300.0		10	608174	JWW	EET CLE	04/03/24 04:44
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656032	SWS	EET SL	04/09/24 17:08
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655551	SCB	EET SL	04/05/24 11:35
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: 2016-05-F-20240308-01

Lab Sample ID: 240-200986-2

Date Collected: 03/08/24 09:45
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 17:47
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:16
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:44
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/13/24 23:51
Total/NA	Analysis	300.0		1	608174	JWW	EET CLE	04/03/24 01:07
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:20
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655551	SCB	EET SL	04/05/24 11:36
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: MW-20-F-20240308-01

Lab Sample ID: 240-200986-3

Date Collected: 03/08/24 11:18
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 17:52

Client Sample ID: MW-20-F-20240308-01
Lab Sample ID: 240-200986-3

Date Collected: 03/08/24 11:18
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:19
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:46
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/13/24 23:59
Total/NA	Analysis	300.0		1	608174	JWW	EET CLE	04/03/24 02:56
Total/NA	Analysis	300.0		20	608531	JWW	EET CLE	04/05/24 16:25
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:20
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655551	SCB	EET SL	04/05/24 11:36
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: 96153R-F-20240308-01
Lab Sample ID: 240-200986-4

Date Collected: 03/08/24 11:52
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 17:56
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:21
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:49
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 00:04
Total/NA	Analysis	300.0		1	608174	JWW	EET CLE	04/03/24 01:29
Total/NA	Analysis	300.0		5	608174	JWW	EET CLE	04/03/24 02:34
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:20
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655551	SCB	EET SL	04/05/24 11:34
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: 96152-F-20240308-01
Lab Sample ID: 240-200986-5

Date Collected: 03/08/24 13:33
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 18:01
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:24

Client Sample ID: 96152-F-20240308-01
Lab Sample ID: 240-200986-5

Date Collected: 03/08/24 13:33
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		10	606375	AJC	EET CLE	03/15/24 20:13
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:56
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 00:19
Total/NA	Analysis	300.0		5	608174	JWW	EET CLE	04/03/24 08:00
Total/NA	Analysis	300.0		20	608174	JWW	EET CLE	04/03/24 08:21
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:20
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655506	SCB	EET SL	04/05/24 11:37
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: DUP-002-F-20240308-01
Lab Sample ID: 240-200986-6

Date Collected: 03/08/24 00:00
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 18:14
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:26
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		10	606375	AJC	EET CLE	03/15/24 20:15
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:59
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 00:25
Total/NA	Analysis	300.0		5	608174	JWW	EET CLE	04/03/24 07:16
Total/NA	Analysis	300.0		20	608174	JWW	EET CLE	04/03/24 07:38
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:21
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655506	SCB	EET SL	04/05/24 11:37
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: 2022-06-F-20240308-01
Lab Sample ID: 240-200986-7

Date Collected: 03/08/24 14:37
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 18:18

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 2022-06-F-20240308-01

Lab Sample ID: 240-200986-7

Date Collected: 03/08/24 14:37
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:29
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 13:01
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 00:33
Total/NA	Analysis	300.0		1	608174	JWW	EET CLE	04/03/24 03:39
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:21
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655506	SCB	EET SL	04/05/24 11:37
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: 96157-F-20240311-01

Lab Sample ID: 240-200986-8

Date Collected: 03/11/24 10:24
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 17:09
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 14:54
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 12:31
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 00:39
Total/NA	Analysis	300.0		1	606257	JWW	EET CLE	03/16/24 00:45
Total/NA	Analysis	300.0		5	606257	JWW	EET CLE	03/16/24 01:06
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656033	SWS	EET SL	04/09/24 17:21
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655506	SCB	EET SL	04/05/24 11:37
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: 96158-F-20240311-01

Lab Sample ID: 240-200986-9

Date Collected: 03/11/24 11:22
Matrix: Water
Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 18:22
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:36

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-200986-1

Client Sample ID: 96158-F-20240311-01

Lab Sample ID: 240-200986-9

Date Collected: 03/11/24 11:22

Matrix: Water

Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 13:04
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 00:52
Total/NA	Analysis	300.0		2	608174	JWW	EET CLE	04/03/24 05:49
Total/NA	Analysis	300.0		10	608174	JWW	EET CLE	04/03/24 06:55
Total/NA	Analysis	SM 2540C		1	606282	C5SV	EET CLE	03/15/24 12:26
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656034	SWS	EET SL	04/09/24 19:46
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655506	SCB	EET SL	04/05/24 11:38
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Client Sample ID: FIELD BLANK-001-F-20240311-01

Lab Sample ID: 240-200986-10

Date Collected: 03/11/24 13:50

Matrix: Water

Date Received: 03/13/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6010D		1	606182	RKT	EET CLE	03/14/24 18:27
Total Recoverable	Prep	3005A			605983	BN	EET CLE	03/13/24 14:00
Total Recoverable	Analysis	6020B		1	606202	AJC	EET CLE	03/14/24 15:39
Total/NA	Prep	7470A			605984	BN	EET CLE	03/13/24 14:00
Total/NA	Analysis	7470A		1	606142	TQ6W	EET CLE	03/14/24 13:06
Total/NA	Analysis	2320B-1997		1	606039	JMR	EET CLE	03/14/24 01:00
Total/NA	Analysis	300.0		1	608174	JWW	EET CLE	04/03/24 20:31
Total/NA	Analysis	SM 2540C		1	606242	C5SV	EET CLE	03/15/24 09:41
Total/NA	Prep	PrecSep-21			652671	KAK	EET SL	03/15/24 10:09
Total/NA	Analysis	9315		1	656034	SWS	EET SL	04/09/24 19:46
Total/NA	Prep	PrecSep_0			652672	KAK	EET SL	03/15/24 10:24
Total/NA	Analysis	9320		1	655506	SCB	EET SL	04/05/24 11:38
Total/NA	Analysis	Ra226_Ra228		1	656458	FLC	EET SL	04/11/24 10:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200986-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-200986-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus

eurofins Environment Testing

Client Information	Sampler: Bobby Ceste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 209	COC No: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: ~~Page 1 of 8~~ Pg 1 of 2
Company: Lightstone Generation Gavin Power LLC	PWSID	Analysis Requested		Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2016-C6-F-20240308-01	3-8-24	0923	G	Water	N		1	1	2	1	1		
2016-05-F-20240308-01	3-8-24	0945	G	Water	N		1	1	2	1	1		
MW-20-F-20240308-01	3-8-24	1118	G	Water	N		1	1	2	1	1		
96153R-F-20240308-01	3-8-24	1152	G	Water	N		1	1	2	1	1		
96152-F-20240308-01	3-8-24	1333	G	Water	N		1	1	2	1	1		
DUP-002-F-20240308-01	3-8-24	—	G	Water	N		1	1	2	1	1		
2022-06-F-20240308-01	3-8-24	1437	G	Water	N		1	1	2	1	1		
96157-F-20240311-01	3-11-24	1024	G	Water	N		1	1	2	1	1		
96157-F-20240311-MS-01	3-11-24	1024	G	Water	N	Y	1	1	2	1	1		
96157-F-20240311-MSD-01	3-11-24	1024	G	Water	N	Y	1	1	2	1	1		
96158-F-20240311-01	3-11-24	1122	G	Water	N		1	1	2	1	1		

240-200986 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Bobby Ceste	3-12-24 / 0845	Karon	Ashley Deal	3/12/24 12:00	EFA
2	Ashley Deal	3-12-24 1200	EFA	[signature]	3-13-24 800	EET NC
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No.: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: ~~Page 1 of 8~~ Pg 2 of 2
Company: Lightstone Generation Gavin Power LLC	PWSID	Analysis Requested		Job #:
Address: 7397 OH-7	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 8020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
Field Blank-ccl-F-20240311-01	3-11-24	1350	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
[signature]	3-12-24 10:45	Kemron	Ashley Deal	3/12/24 12:00	ETA
Ashley Deal	3/12/24 1708	ETA			

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative — Login # : 200986
Barberton Facility

Client LightStone — Site Name ____ — Cooler unpacked by

Cooler Received on 3-13-24 — Opened on 3-13-24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other ____

Receipt After-hours Drop-off Date/Time ____ Storage Location ____

Eurofins Cooler # EC Foam Box Client Cooler Box Other ____

Packing material used: Bubble Wrap Foam Plastic Bag None Other ____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt — See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp ____ °C Corrected Cooler Temp ____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? ____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ *Date* ____ *by* ____ *via Verbal Voice Mail Other*

Concerning ____

18 *CHAIN OF CUSTODY & SAMPLE DISCREPANCIES* ☐ additional next page — Samples processed by:

19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired

Sample(s) ____ *were received in a broken container*

Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory

Time preserved ____ Preservative(s) added/Lot number(s). ____

VOA Sample Preservation Date/Time VOAs Frozen. ____

4/11/2024

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	2.8	2.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	1.4	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	1.9	1.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

3/13/2024

Login Container Summary Report

240-200986

4/11/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2016-06-F-20240308-01	240-200986-A-1	Plastic 60 mL unpreserved				
2016-06-F-20240308-01	240-200986-B-1	Plastic 60 mL - unpreserved				
2016-06 F-20240308-01	240-200986-C-1	Plastic 500ml - unpreserved				
2016-06-F-20240308-01	240-200986-D-1	Plastic 500ml - with Nitric Acid	<2			
2016-06-F-20240308-01	240-200986-E-1	Plastic 1 liter - Nitric Acid	<2			
2016-06-F-20240308-01	240-200986-F-1	Plastic 1 liter - Nitric Acid	<2			
2016-05-F-20240308-01	240-200986 A 2	Plastic 60 mL - unpreserved				
2016-05-F-20240308-01	240-200986-B-2	Plastic 60 mL - unpreserved				
2016-05 F-20240308-01	240-200986-C-2	Plastic 500ml - unpreserved				
2016-05-F-20240308-01	240-200986-D-2	Plastic 500ml - with Nitric Acid	<2			
2016-05-F-20240308-01	240-200986 E-2	Plastic 1 liter - Nitric Acid	<2			
2016-05-F-20240308-01	240-200986 F-2	Plastic 1 liter - Nitric Acid	<2			
MW-20-F-20240308-01	240 200986-A 3	Plastic 60 mL - unpreserved				
MW-20-F-20240308-01	240-200986-B-3	Plastic 60 mL - unpreserved				
MW-20-F-20240308-01	240-200986-C-3	Plastic 500ml - unpreserved				
MW-20-F-20240308-01	240-200986-D-3	Plastic 500ml - with Nitric Acid	<2			
MW-20-F 20240308-01	240-200986-E-3	Plastic 1 liter - Nitric Acid	<2			
MW-20-F-20240308-01	240-200986-F-3	Plastic 1 liter - Nitric Acid	<2			
96153R F 20240308-01	240-200986-A-4	Plastic 60 mL - unpreserved				
96153R-F-20240308-01	240 200986-B-4	Plastic 60 mL - unpreserved				
96153R-F-20240308-01	240 200986-C-4	Plastic 500ml - unpreserved				
96153R-F-20240308-01	240-200986-D-4	Plastic 500ml - with Nitric Acid	<2			
96153R-F-20240308-01	240-200986-E-4	Plastic 1 liter - Nitric Acid	<2			
96153R-F-20240308-01	240-200986-F-4	Plastic 1 liter - Nitric Acid	<2			
96152-F-20240308-01	240-200986-A 5	Plastic 60 mL - unpreserved				
96152-F-20240308-01	240-200986-B-5	Plastic 60 mL - unpreserved				
96152-F-20240308-01	240-200986-C-5	Plastic 500ml - unpreserved				
96152-F-20240308-01	240-200986-D-5	Plastic 500ml with Nitric Acid	<2			
96152-F-20240308-01	240-200986-E-5	Plastic 1 liter - Nitric Acid	<2			
96152-F-20240308-01	240-200986-F-5	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-20240308-01	240-200986-A-6	Plastic 60 mL - unpreserved				
DUP-002 F 20240308-01	240-200986-B-6	Plastic 60 mL - unpreserved				
DUP-002-F-20240308-01	240-200986-C-6	Plastic 500ml - unpreserved				
DUP-002-F-20240308-01	240-200986-D-6	Plastic 500ml - with Nitric Acid	<2			
DUP-002-F-20240308-01	240-200986-E-6	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
DUP-002-F-20240308-01	240-200986-F-6	Plastic 1 liter - Nitric Acid	<2			
2022-06 F 20240308-01	240-200986-A-7	Plastic 60 mL - unpreserved				
2022-06-F-20240308-01	240 200986 B-7	Plastic 60 mL - unpreserved				
2022-06-F-20240308-01	240-200986-C-7	Plastic 500ml - unpreserved				
2022-06-F-20240308-01	240-200986-D-7	Plastic 500ml - with Nitric Acid	<2			
2022-06-F-20240308-01	240-200986-E-7	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-20240308-01	240-200986-F-7	Plastic 1 liter - Nitric Acid	<2			
96157-F 20240311-01	240-200986-A-8	Plastic 60 mL - unpreserved				
96157-F-20240311-01	240-200986-A-8 MS	Plastic 60 mL - unpreserved				
96157-F-20240311-01	240-200986-A-8 MSD	Plastic 60 mL unpreserved				
96157-F-20240311-01	240-200986-B-8	Plastic 60 mL - unpreserved				
96157-F 20240311-01	240-200986-B-8 MS	Plastic 60 mL - unpreserved				
96157-F-20240311-01	240-200986-B-8 MSD	Plastic 60 mL - unpreserved				
96157-F-20240311-01	240-200986-C-8	Plastic 500ml - unpreserved				
96157 F-20240311-01	240-200986-C-8 MS	Plastic 500ml - unpreserved				
96157-F-20240311-01	240-200986-C-8 MSD	Plastic 500ml - unpreserved				
96157-F-20240311-01	240-200986-D-8	Plastic 500ml - with Nitric Acid	<2			
96157-F 20240311-01	240-200986-D-8 MS	Plastic 500ml - with Nitric Acid	<2			
96157-F-20240311-01	240-200986-D-8 MSD	Plastic 500ml - with Nitric Acid	<2			
96157-F-20240311-01	240-200986-E-8	Plastic 1 liter - Nitric Acid	<2			
96157-F-20240311-01	240-200986-E-8 MS	Plastic 1 liter - Nitric Acid	<2			
96157-F-20240311-01	240-200986-E-8 MSD	Plastic 1 liter - Nitric Acid	<2			
96157-F-20240311-01	240-200986-F-8	Plastic 1 liter - Nitric Acid	<2			
96157-F-20240311-01	240 200986-F-8 MS	Plastic 1 liter - Nitric Acid	<2			
96157 F 20240311-01	240-200986-F-8 MSD	Plastic 1 liter - Nitric Acid	<2			
96158-F-20240311-01	240 200986-A-9	Plastic 60 mL - unpreserved				
96158-F-20240311-01	240-200986 B-9	Plastic 60 mL - unpreserved				
96158-F-20240311-01	240-200986-C-9	Plastic 500ml - unpreserved				
96158-F-20240311-01	240-200986 D-9	Plastic 500ml - with Nitric Acid	<2			
96158-F-20240311-01	240-200986-E-9	Plastic 1 liter - Nitric Acid	<2			
96158-F-20240311-01	240-200986-F-9	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001 F-20240311-01	240-200986 A 10	Plastic 60 mL - unpreserved				
FIELD BLANK-001 F-20240311-01	240-200986 B-10	Plastic 60 mL - unpreserved				

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
FIELD BLANK-001-F-20240311-01	240-200986-C-10	Plastic 500ml - unpreserved				
FIELD BLANK-001-F-20240311-01	240-200986-D-10	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-20240311-01	240-200986-E-10	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001 F-20240311-01	240-200986-F-10	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181783.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-200986-1
Address: 13715 Rider Trail North,	Due Date Requested: 3/26/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2016-06-F-20240308-01 (240-200986-1)	3/8/24	09:23 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2016-05-F-20240308-01 (240-200986-2)	3/8/24	09:45 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
MW-20-F-20240308-01 (240-200986-3)	3/8/24	11:18 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
96153R-F-20240308-01 (240-200986-4)	3/8/24	11:52 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
96152-F-20240308-01 (240-200986-5)	3/8/24	13:33 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-002-F-20240308-01 (240-200986-6)	3/8/24	Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-06-F-20240308-01 (240-200986-7)	3/8/24	14:37 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
96157-F-20240311-01 (240-200986-8)	3/11/24	10:24 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
96157-F-20240311-01 (240-200986-8MS)	3/11/24	10:24 Eastern	MS	Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Rachelle Hoover	03-13-24 1200	EBTK			
	Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: MAR 14 2024 0850	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181783.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-200986-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/26/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
96157-F-20240311-01 (240-200986-8MSD)	3/11/24	10:24 Eastern	MSD	Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
96158-F-20240311-01 (240-200986-9)	3/11/24	11:22 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
FIELD BLANK-001-F-20240311-01 (240-200986-10)	3/11/24	13:50 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Rachelle Harcleo	3-13-24 1250	EETNC	M. Pinette	MAR 14 2024 0850	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-200986-1

Login Number: 200986
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 03/14/24 11:26 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/15/2024 4:34:18 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-201157-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-201157-1 — Eurofins Cleveland

Job Narrative
240-201157-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/15/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.0°C, 1.9°C, 3.5°C, 4.3°C, 11.5°C and 21.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-20240313-01 (240-201157-6) and DUP-003-F-20240313-01 (240-201157-7). Elevated reporting limits (RLs) are provided.

Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2019-09-F-20240312-01 (240-201157-1), 2022-14-F-20240312-01 (240-201157-2) and 2022-03-F-20240312-01 (240-201157-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 Prep Batch 160-653033

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 2022-14-F-20240312-01 (240-201157-2), 9631-F-20240313-01 (240-201157-6) and DUP-003-F-20240313-01 (240-201157-7). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 prep batch 160-653033:

The following sample had Ba carrier recovery above the QC limit: 2022-14-F-20240312-01 (240-201157-2). Native Ba was found in the sample, and this value was used to correct the carrier yield. The recovery is now within QC limits.

Method 9315_Ra226: Radium-226 prep batch 160-653033:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 9631-F-20240313-01 (240-201157-6) and DUP-003-F-20240313-01 (240-201157-7)

Method 9320_Ra228: Radium 228 Prep Batch 160-653034

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 2022-14-F-20240312-01 (240-201157-2), 9631-F-20240313-01 (240-201157-6) and DUP-003-F-20240313-01 (240-201157-7). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Job ID: 240-201157-1 (Continued) Eurofins Cleveland

Method 9320_Ra228: Radium-228 prep batch 160-653034:

The detection goal was not met for the following samples due to the reduced sample volume attributed to the presence of matrix interferences: 2019-09-F-20240312-01 (240-201157-1) and 2003-F-20240313-01 (240-201157-5) . Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 prep batch 160-653034:

The following sample had Ba carrier recovery above the QC limit: 2022-14-F-20240312-01 (240-201157-2). Native Ba was found in the sample, and this value was used to correct the carrier yield. The recovery is now within QC limits.

Method 9320_Ra228: Radium-228 prep batch 160-653034:

The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 9631-F-20240313-01 (240-201157-6) and DUP-003-F-20240313-01 (240-201157-7)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201157-1
Project/Site: Federal CCR Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-201157-1	2019-09-F-20240312-01	Water	03/12/24 10:03	03/15/24 08:00
240-201157-2	2022-14-F-20240312-01	Water	03/12/24 12:24	03/15/24 08:00
240-201157-3	2022-03-F-20240312-01	Water	03/12/24 14:00	03/15/24 08:00
240-201157-4	MW-17-F-20240312-01	Water	03/12/24 15:10	03/15/24 08:00
240-201157-5	2003-F-20240313-01	Water	03/13/24 13:10	03/15/24 08:00
240-201157-6	9631-F-20240313-01	Water	03/13/24 14:23	03/15/24 08:00
240-201157-7	DUP-003-F-20240313-01	Water	03/13/24 00:00	03/15/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2019-09-F-20240312-01 — Lab Sample ID: 240-201157-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	5.8		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	27000		50	22	ug/L	10		6020B	Total Recoverable
Calcium	850000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	49		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	6.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	5.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	270		80	17	ug/L	10		6020B	Total Recoverable
Magnesium	260000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	39		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	8800000	B	100000	33000	ug/L	100		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19000		100	13	mg/L	100		300.0	Total/NA
Total Dissolved Solids	24000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-14-F-20240312-01 — Lab Sample ID: 240-201157-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2400		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	290000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.53	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	140		80	17	ug/L	10		6020B	Total Recoverable
Magnesium	79000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	19		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9400		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	0.89	J	5.0	0.89	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2022-14-F-20240312-01 (Continued)

Lab Sample ID: 240-201157-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	5200000	B	10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	10000		100	13	mg/L	100		300.0	Total/NA
Sulfate	92		50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	19000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-03-F-20240312-01

Lab Sample ID: 240-201157-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	440		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.71	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	300		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	280000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.3	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.3		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.70	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	630		80	17	ug/L	10		6020B	Total Recoverable
Magnesium	100000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	200		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	14		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	7200000	B	10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	13000		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.68	J	1.0	0.48	mg/L	20		300.0	Total/NA
Sulfate	690		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	16000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-17-F-20240312-01

Lab Sample ID: 240-201157-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	730		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	27		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	390		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	190000		1000	250	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: MW-17-F-20240312-01 (Continued)

Lab Sample ID: 240-201157-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.44	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	120		40	8.3	ug/L	5		6020B	Total Recoverable
Magnesium	50000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	9.6		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	6800		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	0.93	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	3300000	B	5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	540		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	540		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	5200		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.1		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	1700		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	9600		100	78	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2003-F-20240313-01

Lab Sample ID: 240-201157-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.60	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	32		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	150		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	7200		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	17		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	4.4		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	33		16	3.3	ug/L	2		6020B	Total Recoverable
Magnesium	2600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	130		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3500		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	8.8		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	650000	B	2000	660	ug/L	2		6020B	Total Recoverable
Total Alkalinity	840		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	810		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	25		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2003-F-20240313-01 (Continued)

Lab Sample ID: 240-201157-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	430		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.4		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	64		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1700		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9631-F-20240313-01

Lab Sample ID: 240-201157-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	37000		50	22	ug/L	10		6020B	Total Recoverable
Calcium	1600000		10000	2500	ug/L	10		6020B	Total Recoverable
Chromium	2.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.9		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	340		80	17	ug/L	10		6020B	Total Recoverable
Magnesium	430000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.5	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	14000000	B	100000	33000	ug/L	100		6020B	Total Recoverable
Total Alkalinity	62		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	62		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	28000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	17000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-003-F-20240313-01

Lab Sample ID: 240-201157-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	37000		50	22	ug/L	10		6020B	Total Recoverable
Calcium	1600000		10000	2500	ug/L	10		6020B	Total Recoverable
Chromium	4.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.8		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	340		80	17	ug/L	10		6020B	Total Recoverable
Magnesium	430000		1000	61	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-003-F-20240313-01 (Continued)
Lab Sample ID: 240-201157-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	3.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.6	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	16000000	B	100000	33000	ug/L	100		6020B	Total Recoverable
Total Alkalinity	66		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	66		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	29000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	33000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2019-09-F-20240312-01

Date Collected: 03/12/24 10:03
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**390**		100	57	ug/L		03/18/24 14:00	03/19/24 18:40	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:10	1
Arsenic	**5.8**		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:10	1
Barium	**27000**		50	22	ug/L		03/18/24 14:00	03/20/24 12:16	10
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:10	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:10	1
Calcium	**850000**		1000	250	ug/L		03/18/24 14:00	03/19/24 17:10	1
Chromium	**49**		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:10	1
Cobalt	**6.6**		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:10	1
Lead	**5.2**		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:10	1
Lithium	**270**		80	17	ug/L		03/18/24 14:00	03/20/24 12:16	10
Magnesium	**260000**		1000	61	ug/L		03/18/24 14:00	03/19/24 17:10	1
Molybdenum	**39**		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:10	1
Potassium	**24000**		1000	220	ug/L		03/18/24 14:00	03/19/24 17:10	1
Selenium	**2.3**	**J**	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:10	1
Sodium	**8800000**	**B**	100000	33000	ug/L		03/18/24 14:00	03/20/24 12:04	100
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**190**		5.0	2.6	mg/L			03/21/24 18:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**190**		5.0	2.6	mg/L			03/21/24 18:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 18:23	1
Chloride (EPA 300.0)	**19000**		100	13	mg/L			04/05/24 08:05	100
Fluoride (EPA 300.0)	ND		1.0	0.48	mg/L			04/05/24 23:18	20
Sulfate (EPA 300.0)	ND		100	35	mg/L			04/05/24 08:05	100
Total Dissolved Solids (SM 2540C)	**24000**		1000	780	mg/L			03/18/24 08:53	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**29.3**		2.00	3.31	1.00	0.393	pCi/L	03/19/24 10:21	04/11/24 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.7*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**48.7**	**G**	3.07	5.43	1.00	1.16	pCi/L	03/19/24 10:29	04/10/24 11:48	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2019-09-F-20240312-01
Date Collected: 03/12/24 10:03
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.7*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*
Y Carrier	*78.9*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**78.0**		3.66	6.36	5.00	1.16	pCi/L		04/15/24 15:24	1

Client Sample ID: 2022-14-F-20240312-01
Date Collected: 03/12/24 12:24
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		03/18/24 14:00	03/19/24 18:45	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:13	1
Arsenic	1.5	J	5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:13	1
Barium	2400		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 17:13	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:13	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:13	1
Calcium	290000		1000	250	ug/L		03/18/24 14:00	03/19/24 17:13	1
Chromium	2.8	J	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:13	1
Cobalt	2.6		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:13	1
Lead	0.53	J	1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:13	1
Lithium	140		80	17	ug/L		03/18/24 14:00	03/20/24 12:18	10
Magnesium	79000		1000	61	ug/L		03/18/24 14:00	03/19/24 17:13	1
Molybdenum	19		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:13	1
Potassium	9400		1000	220	ug/L		03/18/24 14:00	03/19/24 17:13	1
Selenium	0.89	J	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:13	1
Sodium	5200000	B	10000	3300	ug/L		03/18/24 14:00	03/20/24 12:18	10
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	150		5.0	2.6	mg/L			03/21/24 18:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	150		5.0	2.6	mg/L			03/21/24 18:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 18:28	1
Chloride (EPA 300.0)	10000		100	13	mg/L			04/05/24 05:33	100
Fluoride (EPA 300.0)	ND		1.0	0.48	mg/L			04/05/24 23:40	20
Sulfate (EPA 300.0)	92		50	17	mg/L			04/05/24 05:12	50
Total Dissolved Solids (SM 2540C)	19000		1000	780	mg/L			03/18/24 08:53	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.23		0.463	0.547	1.00	0.184	pCi/L	03/19/24 10:21	04/11/24 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.83		0.544	0.603	1.00	0.473	pCi/L	03/19/24 10:29	04/10/24 11:48	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2022-14-F-20240312-01
Date Collected: 03/12/24 12:24
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**6.06**		0.714	0.814	5.00	0.473	pCi/L		04/15/24 15:24	1

Client Sample ID: 2022-03-F-20240312-01
Date Collected: 03/12/24 14:00
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	440		100	57	ug/L		03/18/24 14:00	03/19/24 18:49	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.71	J	2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:15	1
Arsenic	2.8	J	5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:15	1
Barium	300		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 17:15	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:15	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:15	1
Calcium	280000		1000	250	ug/L		03/18/24 14:00	03/19/24 17:15	1
Chromium	1.3	J	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:15	1
Cobalt	2.3		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:15	1
Lead	0.70	J	1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:15	1
Lithium	630		80	17	ug/L		03/18/24 14:00	03/20/24 12:21	10
Magnesium	100000		1000	61	ug/L		03/18/24 14:00	03/19/24 17:15	1
Molybdenum	200		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:15	1
Potassium	24000		1000	220	ug/L		03/18/24 14:00	03/19/24 17:15	1
Selenium	14		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:15	1
Sodium	7200000	B	10000	3300	ug/L		03/18/24 14:00	03/20/24 12:21	10
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	270		5.0	2.6	mg/L			03/21/24 18:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			03/21/24 18:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 18:33	1
Chloride (EPA 300.0)	13000		100	13	mg/L			04/05/24 07:22	100
Fluoride (EPA 300.0)	0.68	J	1.0	0.48	mg/L			04/06/24 00:02	20
Sulfate (EPA 300.0)	690		100	35	mg/L			04/05/24 07:22	100
Total Dissolved Solids (SM 2540C)	16000		1000	780	mg/L			03/18/24 08:53	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.18		0.345	0.361	1.00	0.266	pCi/L	03/19/24 10:21	04/11/24 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.71		0.560	0.581	1.00	0.627	pCi/L	03/19/24 10:29	04/10/24 11:48	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2022-03-F-20240312-01
Date Collected: 03/12/24 14:00
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.89**		0.658	0.684	5.00	0.627	pCi/L		04/15/24 15:24	1

Client Sample ID: MW-17-F-20240312-01

Lab Sample ID: 240-201157-4

Date Collected: 03/12/24 15:10

Matrix: Water

Date Received: 03/15/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**730**		100	57	ug/L		03/18/24 14:00	03/19/24 18:54	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:18	1
Arsenic	**27**		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:18	1
Barium	**390**		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 17:18	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:18	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:18	1
Calcium	**190000**		1000	250	ug/L		03/18/24 14:00	03/19/24 17:18	1
Chromium	**1.5**	**J**	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:18	1
Cobalt	**0.44**	**J**	1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:18	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:18	1
Lithium	**120**		40	8.3	ug/L		03/18/24 14:00	03/20/24 12:23	5
Magnesium	**50000**		1000	61	ug/L		03/18/24 14:00	03/19/24 17:18	1
Molybdenum	**9.6**		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:18	1
Potassium	**6800**		1000	220	ug/L		03/18/24 14:00	03/19/24 17:18	1
Selenium	**0.93**	**J**	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:18	1
Sodium	**3300000**	**B**	5000	1600	ug/L		03/18/24 14:00	03/20/24 12:23	5
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**540**		5.0	2.6	mg/L			03/21/24 18:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**540**		5.0	2.6	mg/L			03/21/24 18:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 18:40	1
Chloride (EPA 300.0)	**5200**		50	6.4	mg/L			04/05/24 04:50	50
Fluoride (EPA 300.0)	**1.1**		0.50	0.24	mg/L			04/05/24 03:45	10
Sulfate (EPA 300.0)	**1700**		10	3.5	mg/L			04/05/24 03:45	10
Total Dissolved Solids (SM 2540C)	**9600**		100	78	mg/L			03/18/24 08:53	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.849**		0.253	0.265	1.00	0.208	pCi/L	03/19/24 10:21	04/11/24 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.723**		0.344	0.351	1.00	0.461	pCi/L	03/19/24 10:29	04/10/24 11:48	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: MW-17-F-20240312-01
Date Collected: 03/12/24 15:10
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*
Y Carrier	*81.5*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.57**		0.427	0.440	5.00	0.461	pCi/L		04/15/24 15:24	1

Client Sample ID: 2003-F-20240313-01

Date Collected: 03/13/24 13:10
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	57	ug/L		03/18/24 14:00	03/19/24 18:58	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.60	J	2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:20	1
Arsenic	32		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:20	1
Barium	150		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 17:20	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:20	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:20	1
Calcium	7200		1000	250	ug/L		03/18/24 14:00	03/19/24 17:20	1
Chromium	17		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:20	1
Cobalt	4.6		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:20	1
Lead	4.4		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:20	1
Lithium	33		16	3.3	ug/L		03/18/24 14:00	03/20/24 12:26	2
Magnesium	2600		1000	61	ug/L		03/18/24 14:00	03/19/24 17:20	1
Molybdenum	130		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:20	1
Potassium	3500		1000	220	ug/L		03/18/24 14:00	03/19/24 17:20	1
Selenium	8.8		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:20	1
Sodium	650000	B	2000	660	ug/L		03/18/24 14:00	03/20/24 12:26	2
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	840		5.0	2.6	mg/L			03/21/24 18:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	810		5.0	2.6	mg/L			03/21/24 18:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	25		5.0	2.6	mg/L			03/21/24 18:49	1
Chloride (EPA 300.0)	430		10	1.3	mg/L			04/05/24 02:40	10
Fluoride (EPA 300.0)	3.4		0.050	0.024	mg/L			04/05/24 01:35	1
Sulfate (EPA 300.0)	64		1.0	0.35	mg/L			04/05/24 01:35	1
Total Dissolved Solids (SM 2540C)	1700		20	16	mg/L			03/20/24 12:49	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.521	U	0.482	0.484	1.00	0.753	pCi/L	03/19/24 10:21	04/11/24 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.2*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.71	G	0.966	0.978	1.00	1.38	pCi/L	03/19/24 10:29	04/10/24 11:48	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 2003-F-20240313-01
Date Collected: 03/13/24 13:10
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.2*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*
Y Carrier	*80.0*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:48*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.23**		1.08	1.09	5.00	1.38	pCi/L		04/15/24 15:24	1

Client Sample ID: 9631-F-20240313-01

Lab Sample ID: 240-201157-6

Date Collected: 03/13/24 14:23

Matrix: Water

Date Received: 03/15/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**380**		100	57	ug/L		03/18/24 14:00	03/19/24 19:03	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:23	1
Arsenic	**2.3**	**J**	5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:23	1
Barium	**37000**		50	22	ug/L		03/18/24 14:00	03/20/24 12:28	10
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:23	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:23	1
Calcium	**1600000**		10000	2500	ug/L		03/18/24 14:00	03/20/24 12:28	10
Chromium	**2.9**	**J**	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:23	1
Cobalt	**1.9**		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:23	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:23	1
Lithium	**340**		80	17	ug/L		03/18/24 14:00	03/20/24 12:28	10
Magnesium	**430000**		1000	61	ug/L		03/18/24 14:00	03/19/24 17:23	1
Molybdenum	**3.5**	**J**	5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:23	1
Potassium	**23000**		1000	220	ug/L		03/18/24 14:00	03/19/24 17:23	1
Selenium	**1.4**	**J**	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:23	1
Sodium	**14000000**	**B**	100000	33000	ug/L		03/18/24 14:00	03/20/24 12:06	100
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:23	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**62**		5.0	2.6	mg/L			03/21/24 18:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**62**		5.0	2.6	mg/L			03/21/24 18:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 18:57	1
Chloride (EPA 300.0)	**28000**		1000	130	mg/L			04/05/24 07:00	1000
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			04/05/24 06:39	100
Sulfate (EPA 300.0)	ND		100	35	mg/L			04/05/24 06:39	100
Total Dissolved Solids (SM 2540C)	**17000**		1000	780	mg/L			03/20/24 12:49	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**40.7**		1.90	4.13	1.00	0.317	pCi/L	03/19/24 10:21	04/11/24 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*177*	*X*	*30 - 110*	*03/19/24 10:21*	*04/11/24 09:19*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**65.9**		2.41	6.53	1.00	0.536	pCi/L	03/19/24 10:29	04/10/24 12:00	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Client Sample ID: 9631-F-20240313-01
Date Collected: 03/13/24 14:23
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-6
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*177*	*X*	*30 - 110*	*03/19/24 10:29*	*04/10/24 12:00*	*1*
Y Carrier	*79.6*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:00*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**107**		3.07	7.73	5.00	0.536	pCi/L		04/15/24 15:24	1

Client Sample ID: DUP-003-F-20240313-01

Date Collected: 03/13/24 00:00
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-7

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**390**		100	57	ug/L		03/18/24 14:00	03/19/24 19:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 17:25	1
Arsenic	**3.1**	**J**	5.0	0.75	ug/L		03/18/24 14:00	03/19/24 17:25	1
Barium	**37000**		50	22	ug/L		03/18/24 14:00	03/20/24 12:31	10
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 17:25	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:25	1
Calcium	**1600000**		10000	2500	ug/L		03/18/24 14:00	03/20/24 12:31	10
Chromium	**4.6**	**J**	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 17:25	1
Cobalt	**1.8**		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 17:25	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 17:25	1
Lithium	**340**		80	17	ug/L		03/18/24 14:00	03/20/24 12:31	10
Magnesium	**430000**		1000	61	ug/L		03/18/24 14:00	03/19/24 17:25	1
Molybdenum	**3.4**	**J**	5.0	1.1	ug/L		03/18/24 14:00	03/19/24 17:25	1
Potassium	**23000**		1000	220	ug/L		03/18/24 14:00	03/19/24 17:25	1
Selenium	**1.6**	**J**	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 17:25	1
Sodium	**16000000**	**B**	100000	33000	ug/L		03/18/24 14:00	03/20/24 12:08	100
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 17:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**66**		5.0	2.6	mg/L			03/21/24 19:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**66**		5.0	2.6	mg/L			03/21/24 19:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 19:01	1
Chloride (EPA 300.0)	**29000**		1000	130	mg/L			04/05/24 06:17	1000
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			04/05/24 05:55	100
Sulfate (EPA 300.0)	ND		100	35	mg/L			04/05/24 05:55	100
Total Dissolved Solids (SM 2540C)	**33000**		1000	780	mg/L			03/20/24 12:49	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**35.0**		1.72	3.59	1.00	0.307	pCi/L	03/19/24 10:21	04/11/24 09:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*194*	*X*	*30 - 110*	*03/19/24 10:21*	*04/11/24 09:32*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**73.4**		2.66	7.26	1.00	0.668	pCi/L	03/19/24 10:29	04/10/24 12:00	1

Client Sample ID: DUP-003-F-20240313-01
Date Collected: 03/13/24 00:00
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201157-7
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*194*	*X*	*30 - 110*	*03/19/24 10:29*	*04/10/24 12:00*	*1*
Y Carrier	*73.6*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:00*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**108**		3.17	8.10	5.00	0.668	pCi/L		04/15/24 15:24	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201157-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water | **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-201157-1	2019-09-F-20240312-01	90.7
240-201157-2	2022-14-F-20240312-01	105
240-201157-3	2022-03-F-20240312-01	93.6
240-201157-4	MW-17-F-20240312-01	102
240-201157-5	2003-F-20240313-01	74.2
240-201157-6	9631-F-20240313-01	177 X
240-201157-7	DUP-003-F-20240313-01	194 X
LCS 160-653033/2-A	Lab Control Sample	97.9
MB 160-653033/1-A	Method Blank	96.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water | **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-201157-1	2019-09-F-20240312-01	90.7	78.9
240-201157-2	2022-14-F-20240312-01	105	80.7
240-201157-3	2022-03-F-20240312-01	93.6	80.7
240-201157-4	MW-17-F-20240312-01	102	81.5
240-201157-5	2003-F-20240313-01	74.2	80.0
240-201157-6	9631-F-20240313-01	177 X	79.6
240-201157-7	DUP-003-F-20240313-01	194 X	73.6
LCS 160-653034/2-A	Lab Control Sample	97.9	77.0
MB 160-653034/1-A	Method Blank	96.9	79.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-606463/1-A
Matrix: Water
Analysis Batch: 606660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606463

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/18/24 14:00	03/19/24 13:40	1

Lab Sample ID: LCS 240-606463/2-A
Matrix: Water
Analysis Batch: 606660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-606463/1-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606463

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:26	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:26	1
Barium	ND		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:26	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:26	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:26	1
Calcium	ND		1000	250	ug/L		03/18/24 14:00	03/19/24 16:26	1
Chromium	ND		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:26	1
Cobalt	ND		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:26	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:26	1
Lithium	ND		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:26	1
Magnesium	ND		1000	61	ug/L		03/18/24 14:00	03/19/24 16:26	1
Molybdenum	ND		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:26	1
Potassium	ND		1000	220	ug/L		03/18/24 14:00	03/19/24 16:26	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:26	1
Sodium	408	J	1000	330	ug/L		03/18/24 14:00	03/19/24 16:26	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:26	1

Lab Sample ID: LCS 240-606463/3-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.8		ug/L		99	80 - 120
Arsenic	1000	978		ug/L		98	80 - 120
Barium	1000	984		ug/L		98	80 - 120
Beryllium	500	492		ug/L		98	80 - 120
Cadmium	500	489		ug/L		98	80 - 120
Calcium	25000	24500		ug/L		98	80 - 120
Chromium	500	488		ug/L		98	80 - 120
Cobalt	500	495		ug/L		99	80 - 120
Lead	500	481		ug/L		96	80 - 120
Lithium	500	520		ug/L		104	80 - 120
Magnesium	25000	24100		ug/L		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-606463/3-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606463

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	493		ug/L		99	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	989		ug/L		99	80 - 120
Sodium	25000	24000		ug/L		96	80 - 120
Thallium	1000	1030		ug/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-606464/1-A
Matrix: Water
Analysis Batch: 606604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 14:50	1

Lab Sample ID: LCS 240-606464/2-A
Matrix: Water
Analysis Batch: 606604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.56		ug/L		111	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-607073/4
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 16:57	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 16:57	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 16:57	1

Lab Sample ID: LCS 240-607073/3
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.1		mg/L		102	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-608434/3
Matrix: Water
Analysis Batch: 608434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/04/24 15:48	1
Fluoride	ND		0.050	0.024	mg/L			04/04/24 15:48	1
Sulfate	ND		1.0	0.35	mg/L			04/04/24 15:48	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-608434/4
Matrix: Water
Analysis Batch: 608434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.9		mg/L		102	90 - 110		
Fluoride			2.50	2.65		mg/L		106	90 - 110		
Sulfate			50.0	51.7		mg/L		103	90 - 110		

Lab Sample ID: 240-201157-5 MS
Matrix: Water
Analysis Batch: 608434

Client Sample ID: 2003-F-20240313-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	3.4		2.50	6.01		mg/L		104	80 - 120		
Sulfate	64		50.0	112		mg/L		98	80 - 120		

Lab Sample ID: 240-201157-5 MS
Matrix: Water
Analysis Batch: 608434

Client Sample ID: 2003-F-20240313-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	430		500	906		mg/L		96	80 - 120		
Fluoride	3.1		25.0	29.6		mg/L		106	80 - 120		
Sulfate	61		500	577		mg/L		103	80 - 120		

Lab Sample ID: 240-201157-5 MSD
Matrix: Water
Analysis Batch: 608434

Client Sample ID: 2003-F-20240313-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	3.4		2.50	6.05		mg/L		106	80 - 120	1	15
Sulfate	64		50.0	113		mg/L		98	80 - 120	0	15

Lab Sample ID: 240-201157-5 MSD
Matrix: Water
Analysis Batch: 608434

Client Sample ID: 2003-F-20240313-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	430		500	905		mg/L		95	80 - 120	0	15
Fluoride	3.1		25.0	29.4		mg/L		105	80 - 120	1	15
Sulfate	61		500	572		mg/L		102	80 - 120	1	15

Lab Sample ID: MB 240-608678/3
Matrix: Water
Analysis Batch: 608678

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			04/05/24 18:14	1
Sulfate	ND		1.0	0.35	mg/L			04/05/24 18:14	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-608678/4
Matrix: Water
Analysis Batch: 608678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.69		mg/L		107	90 - 110
Sulfate	50.0	51.9		mg/L		104	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-606387/1
Matrix: Water
Analysis Batch: 606387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/18/24 08:53	1

Lab Sample ID: LCS 240-606387/2
Matrix: Water
Analysis Batch: 606387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	490		mg/L		97	80 - 120

Lab Sample ID: MB 240-606825/1
Matrix: Water
Analysis Batch: 606825

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/20/24 12:49	1

Lab Sample ID: LCS 240-606825/2
Matrix: Water
Analysis Batch: 606825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	463		mg/L		92	80 - 120

Lab Sample ID: 240-201157-5 DU
Matrix: Water
Analysis Batch: 606825

Client Sample ID: 2003-F-20240313-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1700		1670		mg/L		0.1	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-653033/1-A
Matrix: Water
Analysis Batch: 656476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653033

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01622	U	0.0957	0.0957	1.00	0.197	pCi/L	03/19/24 10:21	04/11/24 09:17	1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: MB 160-653033/1-A
Matrix: Water
Analysis Batch: 656476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653033

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		30 - 110	03/19/24 10:21	04/11/24 09:17	1

Lab Sample ID: LCS 160-653033/2-A
Matrix: Water
Analysis Batch: 656476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653033

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.44		1.25	1.00	0.221	pCi/L	92	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.9		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-653034/1-A
Matrix: Water
Analysis Batch: 656281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653034

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6038		0.371	0.375	1.00	0.545	pCi/L	03/19/24 10:29	04/10/24 11:47	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		30 - 110	03/19/24 10:29	04/10/24 11:47	1
Y Carrier	79.6		30 - 110	03/19/24 10:29	04/10/24 11:47	1

Lab Sample ID: LCS 160-653034/2-A
Matrix: Water
Analysis Batch: 656281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653034

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.04	9.817		1.35	1.00	0.627	pCi/L	109	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.9		30 - 110
Y Carrier	77.0		30 - 110

Metals

Prep Batch: 606463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total Recoverable	Water	3005A	
240-201157-2	2022-14-F-20240312-01	Total Recoverable	Water	3005A	
240-201157-3	2022-03-F-20240312-01	Total Recoverable	Water	3005A	
240-201157-4	MW-17-F-20240312-01	Total Recoverable	Water	3005A	
240-201157-5	2003-F-20240313-01	Total Recoverable	Water	3005A	
240-201157-6	9631-F-20240313-01	Total Recoverable	Water	3005A	
240-201157-7	DUP-003-F-20240313-01	Total Recoverable	Water	3005A	
MB 240-606463/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-606463/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-606463/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 606464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	7470A	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	7470A	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	7470A	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	7470A	
240-201157-5	2003-F-20240313-01	Total/NA	Water	7470A	
240-201157-6	9631-F-20240313-01	Total/NA	Water	7470A	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	7470A	
MB 240-606464/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-606464/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 606604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	7470A	606464
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	7470A	606464
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	7470A	606464
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	7470A	606464
240-201157-5	2003-F-20240313-01	Total/NA	Water	7470A	606464
240-201157-6	9631-F-20240313-01	Total/NA	Water	7470A	606464
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	7470A	606464
MB 240-606464/1-A	Method Blank	Total/NA	Water	7470A	606464
LCS 240-606464/2-A	Lab Control Sample	Total/NA	Water	7470A	606464

Analysis Batch: 606660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total Recoverable	Water	6010D	606463
240-201157-2	2022-14-F-20240312-01	Total Recoverable	Water	6010D	606463
240-201157-3	2022-03-F-20240312-01	Total Recoverable	Water	6010D	606463
240-201157-4	MW-17-F-20240312-01	Total Recoverable	Water	6010D	606463
240-201157-5	2003-F-20240313-01	Total Recoverable	Water	6010D	606463
240-201157-6	9631-F-20240313-01	Total Recoverable	Water	6010D	606463
240-201157-7	DUP-003-F-20240313-01	Total Recoverable	Water	6010D	606463
MB 240-606463/1-A	Method Blank	Total Recoverable	Water	6010D	606463
LCS 240-606463/2-A	Lab Control Sample	Total Recoverable	Water	6010D	606463

Analysis Batch: 606719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-2	2022-14-F-20240312-01	Total Recoverable	Water	6020B	606463

Metals (Continued)

Analysis Batch: 606719 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-3	2022-03-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-4	MW-17-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-5	2003-F-20240313-01	Total Recoverable	Water	6020B	606463
240-201157-6	9631-F-20240313-01	Total Recoverable	Water	6020B	606463
240-201157-7	DUP-003-F-20240313-01	Total Recoverable	Water	6020B	606463
MB 240-606463/1-A	Method Blank	Total Recoverable	Water	6020B	606463
LCS 240-606463/3-A	Lab Control Sample	Total Recoverable	Water	6020B	606463

Analysis Batch: 606831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-1	2019-09-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-2	2022-14-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-3	2022-03-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-4	MW-17-F-20240312-01	Total Recoverable	Water	6020B	606463
240-201157-5	2003-F-20240313-01	Total Recoverable	Water	6020B	606463
240-201157-6	9631-F-20240313-01	Total Recoverable	Water	6020B	606463
240-201157-6	9631-F-20240313-01	Total Recoverable	Water	6020B	606463
240-201157-7	DUP-003-F-20240313-01	Total Recoverable	Water	6020B	606463
240-201157-7	DUP-003-F-20240313-01	Total Recoverable	Water	6020B	606463

General Chemistry

Analysis Batch: 606387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	SM 2540C	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	SM 2540C	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	SM 2540C	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	SM 2540C	
MB 240-606387/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606387/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 606825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-5	2003-F-20240313-01	Total/NA	Water	SM 2540C	
240-201157-6	9631-F-20240313-01	Total/NA	Water	SM 2540C	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	SM 2540C	
MB 240-606825/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606825/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-201157-5 DU	2003-F-20240313-01	Total/NA	Water	SM 2540C	

Analysis Batch: 607073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	2320B-1997	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	2320B-1997	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	2320B-1997	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	2320B-1997	
240-201157-5	2003-F-20240313-01	Total/NA	Water	2320B-1997	
240-201157-6	9631-F-20240313-01	Total/NA	Water	2320B-1997	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	2320B-1997	
MB 240-607073/4	Method Blank	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 607073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-607073/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 608434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	300.0	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	300.0	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	300.0	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	300.0	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	300.0	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	300.0	
240-201157-5	2003-F-20240313-01	Total/NA	Water	300.0	
240-201157-5	2003-F-20240313-01	Total/NA	Water	300.0	
240-201157-6	9631-F-20240313-01	Total/NA	Water	300.0	
240-201157-6	9631-F-20240313-01	Total/NA	Water	300.0	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	300.0	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	300.0	
MB 240-608434/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608434/4	Lab Control Sample	Total/NA	Water	300.0	
240-201157-5 MS	2003-F-20240313-01	Total/NA	Water	300.0	
240-201157-5 MS	2003-F-20240313-01	Total/NA	Water	300.0	
240-201157-5 MSD	2003-F-20240313-01	Total/NA	Water	300.0	
240-201157-5 MSD	2003-F-20240313-01	Total/NA	Water	300.0	

Analysis Batch: 608678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	300.0	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	300.0	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	300.0	
MB 240-608678/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608678/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 653033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	PrecSep-21	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	PrecSep-21	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	PrecSep-21	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	PrecSep-21	
240-201157-5	2003-F-20240313-01	Total/NA	Water	PrecSep-21	
240-201157-6	9631-F-20240313-01	Total/NA	Water	PrecSep-21	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	PrecSep-21	
MB 160-653033/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-653033/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 653034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-1	2019-09-F-20240312-01	Total/NA	Water	PrecSep_0	
240-201157-2	2022-14-F-20240312-01	Total/NA	Water	PrecSep_0	
240-201157-3	2022-03-F-20240312-01	Total/NA	Water	PrecSep_0	
240-201157-4	MW-17-F-20240312-01	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 653034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201157-5	2003-F-20240313-01	Total/NA	Water	PrecSep_0	
240-201157-6	9631-F-20240313-01	Total/NA	Water	PrecSep_0	
240-201157-7	DUP-003-F-20240313-01	Total/NA	Water	PrecSep_0	
MB 160-653034/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-653034/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Client Sample ID: 2019-09-F-20240312-01

Lab Sample ID: 240-201157-1

Date Collected: 03/12/24 10:03

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 18:40
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:10
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		100	606831	AJC	EET CLE	03/20/24 12:04
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		10	606831	AJC	EET CLE	03/20/24 12:16
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:15
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 18:23
Total/NA	Analysis	300.0		100	608434	JWW	EET CLE	04/05/24 08:05
Total/NA	Analysis	300.0		20	608678	JWW	EET CLE	04/05/24 23:18
Total/NA	Analysis	SM 2540C		1	606387	C5SV	EET CLE	03/18/24 08:53
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 09:19
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656281	SCB	EET SL	04/10/24 11:48
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 2022-14-F-20240312-01

Lab Sample ID: 240-201157-2

Date Collected: 03/12/24 12:24

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 18:45
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:13
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		10	606831	AJC	EET CLE	03/20/24 12:18
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:21
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 18:28
Total/NA	Analysis	300.0		50	608434	JWW	EET CLE	04/05/24 05:12
Total/NA	Analysis	300.0		100	608434	JWW	EET CLE	04/05/24 05:33
Total/NA	Analysis	300.0		20	608678	JWW	EET CLE	04/05/24 23:40
Total/NA	Analysis	SM 2540C		1	606387	C5SV	EET CLE	03/18/24 08:53
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 09:19
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656281	SCB	EET SL	04/10/24 11:48
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 2022-03-F-20240312-01

Lab Sample ID: 240-201157-3

Date Collected: 03/12/24 14:00

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 18:49
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:15
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		10	606831	AJC	EET CLE	03/20/24 12:21
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:23
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 18:33
Total/NA	Analysis	300.0		100	608434	JWW	EET CLE	04/05/24 07:22
Total/NA	Analysis	300.0		20	608678	JWW	EET CLE	04/06/24 00:02
Total/NA	Analysis	SM 2540C		1	606387	C5SV	EET CLE	03/18/24 08:53
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 09:19
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656281	SCB	EET SL	04/10/24 11:48
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: MW-17-F-20240312-01

Lab Sample ID: 240-201157-4

Date Collected: 03/12/24 15:10

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 18:54
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:18
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		5	606831	AJC	EET CLE	03/20/24 12:23
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:25
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 18:40
Total/NA	Analysis	300.0		10	608434	JWW	EET CLE	04/05/24 03:45
Total/NA	Analysis	300.0		50	608434	JWW	EET CLE	04/05/24 04:50
Total/NA	Analysis	SM 2540C		1	606387	C5SV	EET CLE	03/18/24 08:53
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 09:19
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656281	SCB	EET SL	04/10/24 11:48
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 2003-F-20240313-01

Lab Sample ID: 240-201157-5

Date Collected: 03/13/24 13:10

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 18:58
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:20
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		2	606831	AJC	EET CLE	03/20/24 12:26
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:27
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 18:49
Total/NA	Analysis	300.0		1	608434	JWW	EET CLE	04/05/24 01:35
Total/NA	Analysis	300.0		10	608434	JWW	EET CLE	04/05/24 02:40
Total/NA	Analysis	SM 2540C		1	606825	C5SV	EET CLE	03/20/24 12:49
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 09:19
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656281	SCB	EET SL	04/10/24 11:48
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 9631-F-20240313-01

Lab Sample ID: 240-201157-6

Date Collected: 03/13/24 14:23

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 19:03
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:23
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		100	606831	AJC	EET CLE	03/20/24 12:06
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		10	606831	AJC	EET CLE	03/20/24 12:28
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:29
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 18:57
Total/NA	Analysis	300.0		100	608434	JWW	EET CLE	04/05/24 06:39
Total/NA	Analysis	300.0		1000	608434	JWW	EET CLE	04/05/24 07:00
Total/NA	Analysis	SM 2540C		1	606825	C5SV	EET CLE	03/20/24 12:49
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 09:19
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201157-1
Project/Site: Federal CCR Wells

Client Sample ID: DUP-003-F-20240313-01
Lab Sample ID: 240-201157-7

Date Collected: 03/13/24 00:00
Matrix: Water
Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 19:16
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 17:25
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		100	606831	AJC	EET CLE	03/20/24 12:08
Total Recoverable	Prep	3005A			606463	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		10	606831	AJC	EET CLE	03/20/24 12:31
Total/NA	Prep	7470A			606464	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 15:31
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 19:01
Total/NA	Analysis	300.0		100	608434	JWW	EET CLE	04/05/24 05:55
Total/NA	Analysis	300.0		1000	608434	JWW	EET CLE	04/05/24 06:17
Total/NA	Analysis	SM 2540C		1	606825	C5SV	EET CLE	03/20/24 12:49
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656486	SWS	EET SL	04/11/24 09:32
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201157-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201157-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No.: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 8020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2019-09-F-20240312-01	3-12-24	1003	G	Water	N		1	1	2	1	1		
2022-14-F-20240312-01	3-12-24	1224	G	Water	N		1	1	2	1	1		
2022-03-F-20240312-01	3-12-24	1400	G	Water	N		1	1	2	1	1		
MW-17-F-20240312-01	3-12-24	1510	G	Water	N		1	1	2	1	1		
2003-F-20240313-01	3-13-24	1310	G	Water	N		1	1	2	1	1		
9631-F-20240313-01	3-13-24	1423	G	Water	N		1	1	2	1	1		
DUP-003-F-20240313-01	3-13-24	—	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									



Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Casto	3-14-24 / 0850	Kemron	Ashley Deal	3.14.24 1225	ETA
Ashley Deal	3.14.24 1700	ETA		3-15-24 800	BETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Cleveland Sample Receipt Form/Narrative Login #: 201157
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by: Tammy Kyle

Cooler Received on 3-15-24 Opened on 3-15-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12 Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	1.9	1.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	3.5	3.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	1.0	1.0	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	4.3	4.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	11.5	11.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	21.8	21.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	

3/15/2024

Login Container Summary Report

240-201157

4/15/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2019-09-F-20240312-01	240-201157-A-1	Plastic 60 mL - unpreserved				
2019-09-F-20240312-01	240-201157 B-1	Plastic 60 mL - unpreserved				
2019-09-F-20240312-01	240-201157-C-1	Plastic 500ml - unpreserved				
2019-09-F-20240312-01	240-201157-D-1	Plastic 500ml - with Nitric Acid	<2			
2019-09-F-20240312-01	240-201157-E-1	Plastic 1 liter - Nitric Acid	<2			
2019-09-F-20240312-01	240-201157-F-1	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-20240312-01	240-201157-A-2	Plastic 60 mL - unpreserved				
2022-14-F-20240312-01	240-201157 B-2	Plastic 60 mL - unpreserved				
2022-14-F-20240312-01	240-201157-C-2	Plastic 500ml - unpreserved				
2022-14-F-20240312-01	240-201157-D-2	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-20240312-01	240-201157-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-20240312-01	240-201157-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-20240312-01	240-201157-A-3	Plastic 60 mL - unpreserved				
2022-03-F-20240312-01	240 201157-B-3	Plastic 60 mL unpreserved				
2022-03 F-20240312-01	240-201157-C-3	Plastic 500ml - unpreserved				
2022-03-F-20240312-01	240 201157-D-3	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-20240312-01	240-201157-E-3	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-20240312-01	240-201157-F-3	Plastic 1 liter - Nitric Acid	<2			
MW-17 F-20240312-01	240-201157-A-4	Plastic 60 mL - unpreserved				
MW-17-F-20240312-01	240-201157-B-4	Plastic 60 mL - unpreserved				
MW-17-F-20240312-01	240-201157-C-4	Plastic 500ml - unpreserved				
MW-17-F-20240312-01	240-201157-D-4	Plastic 500ml - with Nitric Acid	<2			
MW-17 F 20240312-01	240-201157-E-4	Plastic 1 liter - Nitric Acid	<2			
MW-17-F-20240312-01	240-201157-F-4	Plastic 1 liter - Nitric Acid	<2			
2003-F-20240313-01	240-201157-A-5	Plastic 60 mL - unpreserved				
2003-F-20240313-01	240-201157-B-5	Plastic 60 mL - unpreserved				
2003-F-20240313-01	240-201157-C-5	Plastic 500ml unpreserved				
2003-F-20240313-01	240-201157-D-5	Plastic 500ml - with Nitric Acid	<2			
2003-F 20240313-01	240-201157-E-5	Plastic 1 liter Nitric Acid	<2			
2003-F-20240313-01	240 201157-F-5	Plastic 1 liter - Nitric Acid	<2			
9631-F 20240313-01	240-201157 A-6	Plastic 60 mL unpreserved				
9631-F-20240313-01	240-201157-B-6	Plastic 60 mL - unpreserved				
9631-F-20240313-01	240-201157-C-6	Plastic 500ml - unpreserved				
9631 F-20240313-01	240-201157-D-6	Plastic 500ml with Nitric Acid	<2			
9631-F-20240313-01	240-201157-E-6	Plastic 1 liter - Nitric Acid	<2			

4/15/2024

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F 20240313-01	240-201157-F-6	Plastic 1 liter - Nitric Acid	<2			
DUP-003-F-20240313-01	240-201157-A-7	Plastic 60 mL - unpreserved				
DUP-003-F-20240313-01	240-201157-B-7	Plastic 60 mL - unpreserved				
DUP-003-F-20240313-01	240-201157-C-7	Plastic 500ml - unpreserved				
DUP-003-F-20240313-01	240 201157-D-7	Plastic 500ml - with Nitric Acid	<2			
DUP-003 F-20240313-01	240-201157-E-7	Plastic 1 liter Nitric Acid	<2			
DUP-003-F-20240313-01	240-201157-F-7	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-181919.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-201157-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 4/16/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2019-09-F-20240312-01 (240-201157-1)	3/12/24	10:03 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-14-F-20240312-01 (240-201157-2)	3/12/24	12:24 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-03-F-20240312-01 (240-201157-3)	3/12/24	14:00 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
MW-17-F-20240312-01 (240-201157-4)	3/12/24	15:10 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2003-F-20240313-01 (240-201157-5)	3/13/24	13:10 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
9631-F-20240313-01 (240-201157-6)	3/13/24	14:23 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-003-F-20240313-01 (240-201157-7)	3/13/24	Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3-15-24 1300	EE/TAL			
Relinquished by:	Date/Time:	Company	Received by: M Pinette	Date/Time: MAR 18 2024 0850	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-201157-1

Login Number: 201157
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 03/18/24 12:25 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Federal CCR Wells Snap Sampler

JOB NUMBER

240-201158-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-201158-1 — Eurofins Cleveland

Job Narrative
240-201158-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/15/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.0°C, 1.9°C, 3.5°C, 4.3°C, 11.5°C and 21.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-201158-1	2018-02-F-20240313-01	Water	03/13/24 09:10	03/15/24 08:00
240-201158-2	2018-03-F-20240313-01	Water	03/13/24 10:15	03/15/24 08:00
240-201158-3	2018-04-F-20240313-01	Water	03/13/24 10:55	03/15/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Client Sample ID: 2018-02-F-20240313-01 — Lab Sample ID: 240-201158-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.2	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	5.0		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	940		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	46000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	96		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	5.0		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	63		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2000000		1000	330	ug/L	1		6020B	Total Recoverable
Chloride	3100		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	73		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	4700		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-03-F-20240313-01 — Lab Sample ID: 240-201158-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	300		100	57	ug/L	1		6010D	Total Recoverable
Antimony	2.1		2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	31		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	240		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	1.1		1.0	0.62	ug/L	1		6020B	Total Recoverable
Calcium	65000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	80		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	27		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	23		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	33		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	21000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	62		5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 2018-03-F-20240313-01 (Continued) — Lab Sample ID: 240-201158-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	6200		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.7	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	400000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.25	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Chloride	64		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.62		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	660		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-04-F-20240313-01 — Lab Sample ID: 240-201158-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	440		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	6.6		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	170		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	180000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	5.5		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	1.9		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	39		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	37000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.1	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	460000		1000	330	ug/L	1		6020B	Total Recoverable
Chloride	410		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	0.76		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	490		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	3000		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Client Sample ID: 2018-02-F-20240313-01

Date Collected: 03/13/24 09:10
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201158-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		03/18/24 14:00	03/19/24 15:59	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.2	J	2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:18	1
Arsenic	5.0		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:18	1
Barium	940		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:18	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:18	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:18	1
Calcium	46000		1000	250	ug/L		03/18/24 14:00	03/19/24 16:18	1
Chromium	96		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:18	1
Cobalt	4.7		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:18	1
Lead	5.0		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:18	1
Lithium	63		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:18	1
Magnesium	15000		1000	61	ug/L		03/18/24 14:00	03/19/24 16:18	1
Molybdenum	110		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:18	1
Potassium	5200		1000	220	ug/L		03/18/24 14:00	03/19/24 16:18	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:18	1
Sodium	2000000		1000	330	ug/L		03/18/24 14:00	03/19/24 16:18	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	3100		25	3.2	mg/L			03/29/24 03:37	25
Fluoride (EPA 300.0)	1.3		0.25	0.12	mg/L			03/29/24 03:15	5
Sulfate (EPA 300.0)	73		5.0	1.7	mg/L			03/29/24 03:15	5
Total Dissolved Solids (SM 2540C)	4700		50	39	mg/L			03/20/24 12:49	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201158-1
Project/Site: Federal CCR Wells Snap Sampler

Client Sample ID: 2018-03-F-20240313-01
Lab Sample ID: 240-201158-2

Date Collected: 03/13/24 10:15
Matrix: Water
Date Received: 03/15/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	300		100	57	ug/L		03/18/24 14:00	03/19/24 16:04	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.1		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:21	1
Arsenic	31		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:21	1
Barium	240		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:21	1
Beryllium	1.1		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:21	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:21	1
Calcium	65000		1000	250	ug/L		03/18/24 14:00	03/19/24 16:21	1
Chromium	80		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:21	1
Cobalt	27		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:21	1
Lead	23		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:21	1
Lithium	33		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:21	1
Magnesium	21000		1000	61	ug/L		03/18/24 14:00	03/19/24 16:21	1
Molybdenum	62		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:21	1
Potassium	6200		1000	220	ug/L		03/18/24 14:00	03/19/24 16:21	1
Selenium	2.7	J	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:21	1
Sodium	400000		1000	330	ug/L		03/18/24 14:00	03/19/24 16:21	1
Thallium	0.25	J	1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	64		1.0	0.13	mg/L			03/29/24 01:49	1
Fluoride (EPA 300.0)	0.62		0.050	0.024	mg/L			03/29/24 01:49	1
Sulfate (EPA 300.0)	660		5.0	1.7	mg/L			03/29/24 02:10	5
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			03/20/24 12:49	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Client Sample ID: 2018-04-F-20240313-01

Date Collected: 03/13/24 10:55
Date Received: 03/15/24 08:00

Lab Sample ID: 240-201158-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**440**		100	57	ug/L		03/18/24 14:00	03/19/24 16:08	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:24	1
Arsenic	**6.6**		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:24	1
Barium	**170**		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:24	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:24	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:24	1
Calcium	**180000**		1000	250	ug/L		03/18/24 14:00	03/19/24 16:24	1
Chromium	**4.9**	**J**	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:24	1
Cobalt	**5.5**		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:24	1
Lead	**1.9**		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:24	1
Lithium	**39**		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:24	1
Magnesium	**37000**		1000	61	ug/L		03/18/24 14:00	03/19/24 16:24	1
Molybdenum	**4.1**	**J**	5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:24	1
Potassium	**3500**		1000	220	ug/L		03/18/24 14:00	03/19/24 16:24	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:24	1
Sodium	**460000**		1000	330	ug/L		03/18/24 14:00	03/19/24 16:24	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**410**		10	1.3	mg/L			03/29/24 02:54	10
Fluoride (EPA 300.0)	**0.76**		0.10	0.048	mg/L			03/29/24 02:32	2
Sulfate (EPA 300.0)	**490**		10	3.5	mg/L			03/29/24 02:54	10
Total Dissolved Solids (SM 2540C)	**3000**		50	39	mg/L			03/20/24 12:49	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-606457/1-A
Matrix: Water
Analysis Batch: 606660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/18/24 14:00	03/19/24 12:24	1

Lab Sample ID: LCS 240-606457/2-A
Matrix: Water
Analysis Batch: 606660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-606457/1-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 15:39	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 15:39	1
Barium	ND		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 15:39	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 15:39	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:39	1
Calcium	ND		1000	250	ug/L		03/18/24 14:00	03/19/24 15:39	1
Chromium	ND		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 15:39	1
Cobalt	ND		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 15:39	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 15:39	1
Lithium	ND		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 15:39	1
Magnesium	ND		1000	61	ug/L		03/18/24 14:00	03/19/24 15:39	1
Molybdenum	ND		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 15:39	1
Potassium	ND		1000	220	ug/L		03/18/24 14:00	03/19/24 15:39	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 15:39	1
Sodium	ND		1000	330	ug/L		03/18/24 14:00	03/19/24 15:39	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:39	1

Lab Sample ID: LCS 240-606457/3-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.3		ug/L		98	80 - 120
Arsenic	1000	974		ug/L		97	80 - 120
Barium	1000	981		ug/L		98	80 - 120
Beryllium	500	483		ug/L		97	80 - 120
Cadmium	500	493		ug/L		99	80 - 120
Calcium	25000	24300		ug/L		97	80 - 120
Chromium	500	484		ug/L		97	80 - 120
Cobalt	500	497		ug/L		99	80 - 120
Lead	500	475		ug/L		95	80 - 120
Lithium	500	520		ug/L		104	80 - 120
Magnesium	25000	24300		ug/L		97	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-606457/3-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	492		ug/L		98	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	973		ug/L		97	80 - 120
Sodium	25000	24000		ug/L		96	80 - 120
Thallium	1000	1020		ug/L		102	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-607565/3
Matrix: Water
Analysis Batch: 607565

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			03/28/24 16:46	1
Fluoride	ND		0.050	0.024	mg/L			03/28/24 16:46	1
Sulfate	ND		1.0	0.35	mg/L			03/28/24 16:46	1

Lab Sample ID: LCS 240-607565/4
Matrix: Water
Analysis Batch: 607565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.4		mg/L		103	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-606825/1
Matrix: Water
Analysis Batch: 606825

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/20/24 12:49	1

Lab Sample ID: LCS 240-606825/2
Matrix: Water
Analysis Batch: 606825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	463		mg/L		92	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201158-1
Project/Site: Federal CCR Wells Snap Sampler

Metals

Prep Batch: 606457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201158-1	2018-02-F-20240313-01	Total Recoverable	Water	3005A	
240-201158-2	2018-03-F-20240313-01	Total Recoverable	Water	3005A	
240-201158-3	2018-04-F-20240313-01	Total Recoverable	Water	3005A	
MB 240-606457/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-606457/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-606457/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 606660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201158-1	2018-02-F-20240313-01	Total Recoverable	Water	6010D	606457
240-201158-2	2018-03-F-20240313-01	Total Recoverable	Water	6010D	606457
240-201158-3	2018-04-F-20240313-01	Total Recoverable	Water	6010D	606457
MB 240-606457/1-A	Method Blank	Total Recoverable	Water	6010D	606457
LCS 240-606457/2-A	Lab Control Sample	Total Recoverable	Water	6010D	606457

Analysis Batch: 606719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201158-1	2018-02-F-20240313-01	Total Recoverable	Water	6020B	606457
240-201158-2	2018-03-F-20240313-01	Total Recoverable	Water	6020B	606457
240-201158-3	2018-04-F-20240313-01	Total Recoverable	Water	6020B	606457
MB 240-606457/1-A	Method Blank	Total Recoverable	Water	6020B	606457
LCS 240-606457/3-A	Lab Control Sample	Total Recoverable	Water	6020B	606457

General Chemistry

Analysis Batch: 606825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201158-1	2018-02-F-20240313-01	Total/NA	Water	SM 2540C	
240-201158-2	2018-03-F-20240313-01	Total/NA	Water	SM 2540C	
240-201158-3	2018-04-F-20240313-01	Total/NA	Water	SM 2540C	
MB 240-606825/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606825/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 607565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201158-1	2018-02-F-20240313-01	Total/NA	Water	300.0	
240-201158-1	2018-02-F-20240313-01	Total/NA	Water	300.0	
240-201158-2	2018-03-F-20240313-01	Total/NA	Water	300.0	
240-201158-2	2018-03-F-20240313-01	Total/NA	Water	300.0	
240-201158-3	2018-04-F-20240313-01	Total/NA	Water	300.0	
240-201158-3	2018-04-F-20240313-01	Total/NA	Water	300.0	
MB 240-607565/3	Method Blank	Total/NA	Water	300.0	
LCS 240-607565/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells Snap Sampler

Job ID: 240-201158-1

Client Sample ID: 2018-02-F-20240313-01

Lab Sample ID: 240-201158-1

Date Collected: 03/13/24 09:10

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 15:59
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 16:18
Total/NA	Analysis	300.0		5	607565	JWW	EET CLE	03/29/24 03:15
Total/NA	Analysis	300.0		25	607565	JWW	EET CLE	03/29/24 03:37
Total/NA	Analysis	SM 2540C		1	606825	C5SV	EET CLE	03/20/24 12:49

Client Sample ID: 2018-03-F-20240313-01

Lab Sample ID: 240-201158-2

Date Collected: 03/13/24 10:15

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 16:04
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 16:21
Total/NA	Analysis	300.0		1	607565	JWW	EET CLE	03/29/24 01:49
Total/NA	Analysis	300.0		5	607565	JWW	EET CLE	03/29/24 02:10
Total/NA	Analysis	SM 2540C		1	606825	C5SV	EET CLE	03/20/24 12:49

Client Sample ID: 2018-04-F-20240313-01

Lab Sample ID: 240-201158-3

Date Collected: 03/13/24 10:55

Matrix: Water

Date Received: 03/15/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 16:08
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 16:24
Total/NA	Analysis	300.0		2	607565	JWW	EET CLE	03/29/24 02:32
Total/NA	Analysis	300.0		10	607565	JWW	EET CLE	03/29/24 02:54
Total/NA	Analysis	SM 2540C		1	606825	C5SV	EET CLE	03/20/24 12:49

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201158-1
Project/Site: Federal CCR Wells Snap Sampler

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 200

eurofins | Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93018-34502
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Cheshire	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3111(Tel)	PO #: 2935505			Other:
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal - CCR Wells Snap Sampler-	Project #: 24019633			Limited Volume App III and IV (Unpreserved with focus on TDS, Cl-, SO4 and F) Nitric Acid with focus on Ca and B)
Site: Ohio	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	MS/MSD (Yes or No)	300.0, SM2540C	6020a, 6020b	Total Number of containers	
2018-02-F-20240313-01	3-13-24	0910	G	W	N			1	1		* Extra Sample collected in 250ml unpreserved bottle. *
2018-03-F-20240313-01	3-13-24	105	G	W	N			1	1		
2018-04-F-20240313-01	3-13-24	1055	G	W	N			1	1		

240-201158 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Casto	3-14-24/0850	KEMA	Ashley Deal	3.14.24 1123	ETA
Ashley Deal	3.14.24 1200	ETA		3-15-24 800	ETNC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative — Login #: 201156
Barberton Facility

Client LightStone — Site Name ____ — Cooler unpacked by: Tommy Ryan

Cooler Received on 3-15-24 — Opened on 3-15-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other ____

Receipt After-hours Drop-off Date/Time ____ Storage Location ____

Eurofins Cooler # EC Foam Box Client Cooler Box Other ____

Packing material used. ~~Bubble Wrap~~ Foam Plastic Bag None Other ____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt — ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp ____ °C Corrected Cooler Temp ____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? ____	Yes	No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired

Sample(s) ____ were received in a broken container

Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory

Time preserved. ____ Preservative(s) added/Lot number(s): ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: (22)	1.9	1.9	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: (22)	3.5	3.5	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: (22)	1.0	1.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: (22)	4.3	4.3	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: (22)	1.5	1.5	Wet Ice Blue Ice (Dry Ice) Water None
EC Client (Box) Other	IR GUN #: (22)	2.8	2.8	Wet Ice Blue Ice Dry Ice Water (None)
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

3/15/2024

Login Container Summary Report

240-201158

4/1/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2018-02-F-20240313-01	240-201158-A-1	Plastic 250ml - unpreserved				
2018-02-F-20240313-01	240-201158-B-1	Plastic 250ml - unpreserved				
2018-02-F-20240313-01	240-201158-C-1	Plastic 250ml with Nitric Acid	<2			
2018-03-F-20240313-01	240-201158 A-2	Plastic 250ml - unpreserved				
2018-03-F-20240313-01	240-201158-B-2	Plastic 250ml - unpreserved				
2018-03-F-20240313-01	240-201158-C-2	Plastic 250ml - with Nitric Acid	<2			
2018-04-F-20240313-01	240-201158-A-3	Plastic 250ml - unpreserved				
2018-04-F-20240313-01	240-201158 B-3	Plastic 250ml unpreserved				
2018-04-F-20240313-01	240-201158-C-3	Plastic 250ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/15/2024 4:34:57 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-201241-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-201241-1 — Eurofins Cleveland

Job Narrative
240-201241-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/15/2024 2:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8°C, 1.5°C and 4.2°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 9801-F-20240314-01 (240-201241-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-201241-1	9802-F-20240314-01	Water	03/14/24 10:11	03/15/24 14:15
240-201241-2	9801-F-20240314-01	Water	03/14/24 11:01	03/15/24 14:15
240-201241-3	9806-F-20240314-01	Water	03/14/24 12:56	03/15/24 14:15
240-201241-4	2000-F-20240314-01	Water	03/14/24 14:33	03/15/24 14:15
240-201241-5	FIELDBLANK-001-F-20240314-01	Water	03/14/24 15:00	03/15/24 14:15

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 9802-F-20240314-01 — Lab Sample ID: 240-201241-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	160		100	57	ug/L	1		6010D	Total Recoverable
Barium	80		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	33000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.59	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.45	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	12		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	9200		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	250000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.55	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	37		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.93		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	64		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	730		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9801-F-20240314-01 — Lab Sample ID: 240-201241-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	420		100	57	ug/L	1		6010D	Total Recoverable
Barium	4700		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	200000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.2	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	130		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	58000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.8	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	4600000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	140		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	140		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	8000		50	6.4	mg/L	50		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 9801-F-20240314-01 (Continued) — Lab Sample ID: 240-201241-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.74		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	5.9	J	10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	11000		100	78	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9806-F-20240314-01 — Lab Sample ID: 240-201241-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	250		100	57	ug/L	1		6010D	Total Recoverable
Barium	43		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	21000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	39		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	6800		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	6.1		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.1	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	300000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	81		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.64		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	490		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	860		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2000-F-20240314-01 — Lab Sample ID: 240-201241-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	340		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	22		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	2600		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	19		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	660	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	35		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	830	J	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	450000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.37	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	400		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2000-F-20240314-01 (Continued)
Lab Sample ID: 240-201241-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbonate Alkalinity as CaCO3	46		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	73		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	2.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	520		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	1100		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELDBLANK-001-F-20240314-01
Lab Sample ID: 240-201241-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	2.0	J	8.0	1.7	ug/L	1		6020B	Total Recoverable
Sodium	520	J	1000	330	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9802-F-20240314-01
Date Collected: 03/14/24 10:11
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	160		100	57	ug/L		03/18/24 14:00	03/19/24 15:12	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 15:56	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 15:56	1
Barium	80		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 15:56	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 15:56	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:56	1
Calcium	33000		1000	250	ug/L		03/18/24 14:00	03/19/24 15:56	1
Chromium	1.9	J	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 15:56	1
Cobalt	0.59	J	1.0	0.19	ug/L		03/18/24 14:00	03/19/24 15:56	1
Lead	0.45	J	1.0	0.45	ug/L		03/18/24 14:00	03/19/24 15:56	1
Lithium	12		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 15:56	1
Magnesium	9200		1000	61	ug/L		03/18/24 14:00	03/19/24 15:56	1
Molybdenum	4.3	J	5.0	1.1	ug/L		03/18/24 14:00	03/19/24 15:56	1
Potassium	1400		1000	220	ug/L		03/18/24 14:00	03/19/24 15:56	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 15:56	1
Sodium	250000		1000	330	ug/L		03/18/24 14:00	03/19/24 15:56	1
Thallium	0.55	J	1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	600		5.0	2.6	mg/L			03/21/24 22:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	600		5.0	2.6	mg/L			03/21/24 22:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 22:11	1
Chloride (EPA 300.0)	37		1.0	0.13	mg/L			04/06/24 05:28	1
Fluoride (EPA 300.0)	0.93		0.050	0.024	mg/L			04/06/24 05:28	1
Sulfate (EPA 300.0)	64		1.0	0.35	mg/L			04/06/24 05:28	1
Total Dissolved Solids (SM 2540C)	730		10	7.8	mg/L			03/21/24 09:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.576		0.310	0.314	1.00	0.420	pCi/L	03/19/24 10:21	04/11/24 09:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:32*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.915		0.516	0.523	1.00	0.745	pCi/L	03/19/24 10:29	04/10/24 12:01	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 9802-F-20240314-01
Date Collected: 03/14/24 10:11
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*
Y Carrier	*78.9*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.49**		0.602	0.610	5.00	0.745	pCi/L		04/15/24 15:24	1

Client Sample ID: 9801-F-20240314-01

Date Collected: 03/14/24 11:01
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	420		100	57	ug/L		03/18/24 14:00	03/19/24 15:17	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:04	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:04	1
Barium	4700		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:04	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:04	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:04	1
Calcium	200000		1000	250	ug/L		03/18/24 14:00	03/19/24 16:04	1
Chromium	1.2	J	5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:04	1
Cobalt	1.1		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:04	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:04	1
Lithium	130		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:04	1
Magnesium	58000		1000	61	ug/L		03/18/24 14:00	03/19/24 16:04	1
Molybdenum	3.8	J	5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:04	1
Potassium	9400		1000	220	ug/L		03/18/24 14:00	03/19/24 16:04	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:04	1
Sodium	4600000		10000	3300	ug/L		03/18/24 14:00	03/20/24 10:49	10
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	140		5.0	2.6	mg/L			03/21/24 22:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	140		5.0	2.6	mg/L			03/21/24 22:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 22:18	1
Chloride (EPA 300.0)	8000		50	6.4	mg/L			04/06/24 20:18	50
Fluoride (EPA 300.0)	0.74		0.50	0.24	mg/L			04/06/24 19:56	10
Sulfate (EPA 300.0)	5.9	J	10	3.5	mg/L			04/06/24 19:56	10
Total Dissolved Solids (SM 2540C)	11000		100	78	mg/L			03/21/24 09:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.39		0.491	0.578	1.00	0.286	pCi/L	03/19/24 10:21	04/11/24 09:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:32*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.22		0.659	0.765	1.00	0.512	pCi/L	03/19/24 10:29	04/10/24 12:01	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 9801-F-20240314-01
Date Collected: 03/14/24 11:01
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*
Y Carrier	*77.4*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**7.61**		0.822	0.959	5.00	0.512	pCi/L		04/15/24 15:24	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 9806-F-20240314-01

Date Collected: 03/14/24 12:56
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	250		100	57	ug/L		03/18/24 14:00	03/19/24 15:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:06	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:06	1
Barium	43		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:06	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:06	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:06	1
Calcium	21000		1000	250	ug/L		03/18/24 14:00	03/19/24 16:06	1
Chromium	ND		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:06	1
Cobalt	ND		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:06	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:06	1
Lithium	39		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:06	1
Magnesium	6800		1000	61	ug/L		03/18/24 14:00	03/19/24 16:06	1
Molybdenum	6.1		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:06	1
Potassium	2000		1000	220	ug/L		03/18/24 14:00	03/19/24 16:06	1
Selenium	1.1	J	5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:06	1
Sodium	300000		1000	330	ug/L		03/18/24 14:00	03/19/24 16:06	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 16:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	330		5.0	2.6	mg/L			03/21/24 22:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	330		5.0	2.6	mg/L			03/21/24 22:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 22:23	1
Chloride (EPA 300.0)	81		1.0	0.13	mg/L			04/06/24 06:55	1
Fluoride (EPA 300.0)	0.64		0.050	0.024	mg/L			04/06/24 06:55	1
Sulfate (EPA 300.0)	490		5.0	1.7	mg/L			04/06/24 07:16	5
Total Dissolved Solids (SM 2540C)	860		20	16	mg/L			03/21/24 09:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.217		0.144	0.146	1.00	0.188	pCi/L	03/19/24 10:21	04/11/24 15:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*30 - 110*	*03/19/24 10:21*	*04/11/24 15:03*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.699		0.409	0.414	1.00	0.592	pCi/L	03/19/24 10:29	04/10/24 12:01	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 9806-F-20240314-01
Date Collected: 03/14/24 12:56
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*
Y Carrier	*76.3*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.916**		0.434	0.439	5.00	0.592	pCi/L		04/15/24 15:24	1

Client Sample ID: 2000-F-20240314-01

Lab Sample ID: 240-201241-4

Date Collected: 03/14/24 14:33

Matrix: Water

Date Received: 03/15/24 14:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	340		100	57	ug/L		03/18/24 14:00	03/19/24 14:51	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 15:44	1
Arsenic	1.9	J	5.0	0.75	ug/L		03/18/24 14:00	03/19/24 15:44	1
Barium	22		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 15:44	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 15:44	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:44	1
Calcium	2600		1000	250	ug/L		03/18/24 14:00	03/19/24 15:44	1
Chromium	ND		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 15:44	1
Cobalt	ND		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 15:44	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 15:44	1
Lithium	19		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 15:44	1
Magnesium	660	J	1000	61	ug/L		03/18/24 14:00	03/19/24 15:44	1
Molybdenum	35		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 15:44	1
Potassium	830	J	1000	220	ug/L		03/18/24 14:00	03/19/24 15:44	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 15:44	1
Sodium	450000		1000	330	ug/L		03/18/24 14:00	03/19/24 15:44	1
Thallium	0.37	J	1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/19/24 14:00	03/20/24 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	400		5.0	2.6	mg/L			03/21/24 22:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350		5.0	2.6	mg/L			03/21/24 22:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	46		5.0	2.6	mg/L			03/21/24 22:29	1
Chloride (EPA 300.0)	73		1.0	0.13	mg/L			04/06/24 11:15	1
Fluoride (EPA 300.0)	2.2		0.050	0.024	mg/L			04/06/24 11:15	1
Sulfate (EPA 300.0)	520		5.0	1.7	mg/L			04/06/24 12:20	5
Total Dissolved Solids (SM 2540C)	1100		20	16	mg/L			03/21/24 09:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225		0.142	0.144	1.00	0.180	pCi/L	03/19/24 10:21	04/11/24 15:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.2*		*30 - 110*	*03/19/24 10:21*	*04/11/24 15:03*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.608		0.371	0.375	1.00	0.542	pCi/L	03/19/24 10:29	04/10/24 12:01	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 2000-F-20240314-01
Date Collected: 03/14/24 14:33
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.2*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*
Y Carrier	*78.5*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.834**		0.397	0.402	5.00	0.542	pCi/L		04/15/24 15:24	1

Client Sample ID: FIELDBLANK-001-F-20240314-01

Lab Sample ID: 240-201241-5

Date Collected: 03/14/24 15:00

Matrix: Water

Date Received: 03/15/24 14:15

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/18/24 14:00	03/19/24 15:34	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 16:09	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 16:09	1
Barium	ND		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 16:09	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 16:09	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:09	1
Calcium	ND		1000	250	ug/L		03/18/24 14:00	03/19/24 16:09	1
Chromium	ND		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 16:09	1
Cobalt	ND		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 16:09	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 16:09	1
Lithium	**2.0**	**J**	8.0	1.7	ug/L		03/18/24 14:00	03/19/24 16:09	1
Magnesium	ND		1000	61	ug/L		03/18/24 14:00	03/19/24 16:09	1
Molybdenum	ND		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 16:09	1
Potassium	ND		1000	220	ug/L		03/18/24 14:00	03/19/24 16:09	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 16:09	1
Sodium	**520**	**J**	1000	330	ug/L		03/18/24 14:00	03/19/24 16:09	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 16:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 16:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 22:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 22:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/21/24 22:42	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/06/24 04:44	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/06/24 04:44	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/06/24 04:44	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			03/21/24 09:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.191	U	0.153	0.154	1.00	0.225	pCi/L	03/19/24 10:21	04/11/24 15:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*03/19/24 10:21*	*04/11/24 15:03*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.306	0.307	1.00	0.513	pCi/L	03/19/24 10:29	04/10/24 12:01	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: FIELDBLANK-001-F-20240314-01
Date Collected: 03/14/24 15:00
Date Received: 03/15/24 14:15

Lab Sample ID: 240-201241-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*
Y Carrier	*81.1*		*30 - 110*	*03/19/24 10:29*	*04/10/24 12:01*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.417	U	0.342	0.343	5.00	0.513	pCi/L		04/15/24 15:24	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201241-1
Project/Site: Federal CCR Wells

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-201241-1	9802-F-20240314-01	101
240-201241-2	9801-F-20240314-01	108
240-201241-3	9806-F-20240314-01	94.8
240-201241-4	2000-F-20240314-01	99.2
240-201241-4 MS	2000-F-20240314-01	99.2
240-201241-4 MSD	2000-F-20240314-01	97.7
240-201241-5	FIELDBLANK-001-F-20240314-01	101
LCS 160-653033/2-A	Lab Control Sample	97.9
MB 160-653033/1-A	Method Blank	96.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-201241-1	9802-F-20240314-01	101	78.9
240-201241-2	9801-F-20240314-01	108	77.4
240-201241-3	9806-F-20240314-01	94.8	76.3
240-201241-4	2000-F-20240314-01	99.2	78.5
240-201241-4 MS	2000-F-20240314-01	99.2	77.0
240-201241-4 MSD	2000-F-20240314-01	97.7	78.9
240-201241-5	FIELDBLANK-001-F-20240314-01	101	81.1
LCS 160-653034/2-A	Lab Control Sample	97.9	77.0
MB 160-653034/1-A	Method Blank	96.9	79.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-606457/1-A
Matrix: Water
Analysis Batch: 606660

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/18/24 14:00	03/19/24 12:24	1

Lab Sample ID: LCS 240-606457/2-A
Matrix: Water
Analysis Batch: 606660

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 606660

Client Sample ID: 2000-F-20240314-01
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	340		100	454		ug/L		114	75 - 125

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 606660

Client Sample ID: 2000-F-20240314-01
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	340		100	422		ug/L		83	75 - 125	7	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-606457/1-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/18/24 14:00	03/19/24 15:39	1
Arsenic	ND		5.0	0.75	ug/L		03/18/24 14:00	03/19/24 15:39	1
Barium	ND		5.0	2.2	ug/L		03/18/24 14:00	03/19/24 15:39	1
Beryllium	ND		1.0	0.62	ug/L		03/18/24 14:00	03/19/24 15:39	1
Cadmium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:39	1
Calcium	ND		1000	250	ug/L		03/18/24 14:00	03/19/24 15:39	1
Chromium	ND		5.0	1.2	ug/L		03/18/24 14:00	03/19/24 15:39	1
Cobalt	ND		1.0	0.19	ug/L		03/18/24 14:00	03/19/24 15:39	1
Lead	ND		1.0	0.45	ug/L		03/18/24 14:00	03/19/24 15:39	1
Lithium	ND		8.0	1.7	ug/L		03/18/24 14:00	03/19/24 15:39	1
Magnesium	ND		1000	61	ug/L		03/18/24 14:00	03/19/24 15:39	1
Molybdenum	ND		5.0	1.1	ug/L		03/18/24 14:00	03/19/24 15:39	1
Potassium	ND		1000	220	ug/L		03/18/24 14:00	03/19/24 15:39	1
Selenium	ND		5.0	0.89	ug/L		03/18/24 14:00	03/19/24 15:39	1
Sodium	ND		1000	330	ug/L		03/18/24 14:00	03/19/24 15:39	1
Thallium	ND		1.0	0.20	ug/L		03/18/24 14:00	03/19/24 15:39	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-606457/3-A
Matrix: Water
Analysis Batch: 606719

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			100	98.3		ug/L		98	80 - 120		
Arsenic			1000	974		ug/L		97	80 - 120		
Barium			1000	981		ug/L		98	80 - 120		
Beryllium			500	483		ug/L		97	80 - 120		
Cadmium			500	493		ug/L		99	80 - 120		
Calcium			25000	24300		ug/L		97	80 - 120		
Chromium			500	484		ug/L		97	80 - 120		
Cobalt			500	497		ug/L		99	80 - 120		
Lead			500	475		ug/L		95	80 - 120		
Lithium			500	520		ug/L		104	80 - 120		
Magnesium			25000	24300		ug/L		97	80 - 120		
Molybdenum			500	492		ug/L		98	80 - 120		
Potassium			25000	24400		ug/L		98	80 - 120		
Selenium			1000	973		ug/L		97	80 - 120		
Sodium			25000	24000		ug/L		96	80 - 120		
Thallium			1000	1020		ug/L		102	80 - 120		

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 606719

Client Sample ID: 2000-F-20240314-01
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		100	102		ug/L		102	80 - 120		
Arsenic	1.9	J	1000	1050		ug/L		105	80 - 120		
Barium	22		1000	1040		ug/L		101	80 - 120		
Beryllium	ND		500	480		ug/L		96	80 - 120		
Cadmium	ND		500	493		ug/L		99	80 - 120		
Calcium	2600		25000	27800		ug/L		101	80 - 120		
Chromium	ND		500	513		ug/L		103	80 - 120		
Cobalt	ND		500	525		ug/L		105	80 - 120		
Lead	ND		500	488		ug/L		98	80 - 120		
Lithium	19		500	552		ug/L		107	80 - 120		
Magnesium	660	J	25000	24800		ug/L		97	80 - 120		
Molybdenum	35		500	563		ug/L		106	80 - 120		
Potassium	830	J	25000	25700		ug/L		100	80 - 120		
Selenium	ND		1000	1000		ug/L		100	80 - 120		
Sodium	450000		25000	468000	4	ug/L		78	80 - 120		
Thallium	0.37	J	1000	989		ug/L		99	80 - 120		

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 606719

Client Sample ID: 2000-F-20240314-01
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	101		ug/L		101	80 - 120	0	20
Arsenic	1.9	J	1000	1050		ug/L		105	80 - 120	0	20
Barium	22		1000	1040		ug/L		101	80 - 120	0	20
Beryllium	ND		500	479		ug/L		96	80 - 120	0	20
Cadmium	ND		500	493		ug/L		99	80 - 120	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 606719

Client Sample ID: 2000-F-20240314-01
Prep Type: Total Recoverable
Prep Batch: 606457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	2600		25000	27400		ug/L		99	80 - 120	2	20
Chromium	ND		500	515		ug/L		103	80 - 120	0	20
Cobalt	ND		500	521		ug/L		104	80 - 120	1	20
Lead	ND		500	488		ug/L		98	80 - 120	0	20
Lithium	19		500	542		ug/L		105	80 - 120	2	20
Magnesium	660	J	25000	24500		ug/L		95	80 - 120	1	20
Molybdenum	35		500	559		ug/L		105	80 - 120	1	20
Potassium	830	J	25000	25600		ug/L		99	80 - 120	0	20
Selenium	ND		1000	994		ug/L		99	80 - 120	1	20
Sodium	450000		25000	449000	4	ug/L		2	80 - 120	4	20
Thallium	0.37	J	1000	1000		ug/L		100	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-606460/1-A
Matrix: Water
Analysis Batch: 606604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/18/24 14:00	03/19/24 09:26	1

Lab Sample ID: LCS 240-606460/2-A
Matrix: Water
Analysis Batch: 606604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.19		ug/L		104	80 - 120

Lab Sample ID: MB 240-606623/1-A
Matrix: Water
Analysis Batch: 606799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606623

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/19/24 14:00	03/20/24 10:30	1

Lab Sample ID: LCS 240-606623/2-A
Matrix: Water
Analysis Batch: 606799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.10		ug/L		102	80 - 120

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 606799

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA
Prep Batch: 606623

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.991		ug/L		99	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 606799

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA
Prep Batch: 606623

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.921		ug/L		92	80 - 120	7	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-607073/30
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 19:17	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 19:17	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 19:17	1

Lab Sample ID: MB 240-607073/4
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 16:57	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 16:57	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 16:57	1

Lab Sample ID: MB 240-607073/56
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 21:37	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 21:37	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 21:37	1

Lab Sample ID: LCS 240-607073/29
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	80.9		mg/L		100	86 - 123

Lab Sample ID: LCS 240-607073/55
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	82.4		mg/L		102	86 - 123

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-201241-4 DU
Matrix: Water
Analysis Batch: 607073

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	400		395		mg/L		0.9	20
Bicarbonate Alkalinity as CaCO3	350		351		mg/L		0.1	20
Carbonate Alkalinity as CaCO3	46		43.3		mg/L		7	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-608421/3
Matrix: Water
Analysis Batch: 608421

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/06/24 02:34	1
Fluoride	ND		0.050	0.024	mg/L			04/06/24 02:34	1
Sulfate	ND		1.0	0.35	mg/L			04/06/24 02:34	1

Lab Sample ID: LCS 240-608421/4
Matrix: Water
Analysis Batch: 608421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.1		mg/L		102	90 - 110
Fluoride	2.50	2.66		mg/L		107	90 - 110
Sulfate	50.0	52.2		mg/L		104	90 - 110

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 608421

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	73		50.0	123		mg/L		100	80 - 120
Fluoride	2.2		2.50	4.90		mg/L		108	80 - 120

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 608421

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	520		250	761		mg/L		96	80 - 120

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 608421

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	73		50.0	123		mg/L		100	80 - 120	0	15
Fluoride	2.2		2.50	4.89		mg/L		107	80 - 120	0	15

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 608421

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	520		250	757		mg/L		94	80 - 120	1	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-606936/1
Matrix: Water
Analysis Batch: 606936

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/21/24 09:39	1

Lab Sample ID: LCS 240-606936/2
Matrix: Water
Analysis Batch: 606936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	471		mg/L		93	80 - 120

Lab Sample ID: 240-201241-4 DU
Matrix: Water
Analysis Batch: 606936

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1150		mg/L		0.5	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-653033/1-A
Matrix: Water
Analysis Batch: 656476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653033

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01622	U	0.0957	0.0957	1.00	0.197	pCi/L	03/19/24 10:21	04/11/24 09:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*30 - 110*	*03/19/24 10:21*	*04/11/24 09:17*	*1*

Lab Sample ID: LCS 160-653033/2-A
Matrix: Water
Analysis Batch: 656476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653033

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.44		1.25	1.00	0.221	pCi/L	92	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.9*		*30 - 110*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 656476

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA
Prep Batch: 653033

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	0.225		11.4	11.18		1.30	1.00	0.205	pCi/L	96	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.2*		*30 - 110*

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 656476

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA
Prep Batch: 653033

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.225		11.4	11.09		1.30	1.00	0.274	pCi/L	95	60 - 140	0.03	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*97.7*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-653034/1-A
Matrix: Water
Analysis Batch: 656281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653034

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6038		0.371	0.375	1.00	0.545	pCi/L	03/19/24 10:29	04/10/24 11:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:47*	*1*
Y Carrier	*79.6*		*30 - 110*	*03/19/24 10:29*	*04/10/24 11:47*	*1*

Lab Sample ID: LCS 160-653034/2-A
Matrix: Water
Analysis Batch: 656281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653034

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228			9.04	9.817		1.35	1.00	0.627	pCi/L	109	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.9*		*30 - 110*
Y Carrier	*77.0*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-201241-4 MS
Matrix: Water
Analysis Batch: 656291

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA
Prep Batch: 653034

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	0.608		9.12	9.947		1.36	1.00	0.578	pCi/L	102	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*99.2*		*30 - 110*
Y Carrier	*77.0*		*30 - 110*

Lab Sample ID: 240-201241-4 MSD
Matrix: Water
Analysis Batch: 656291

Client Sample ID: 2000-F-20240314-01
Prep Type: Total/NA
Prep Batch: 653034

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.608		9.10	9.402		1.29	1.00	0.525	pCi/L	97	60 - 140	0.21	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*97.7*		*30 - 110*
Y Carrier	*78.9*		*30 - 110*

Metals

Prep Batch: 606457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total Recoverable	Water	3005A	
240-201241-2	9801-F-20240314-01	Total Recoverable	Water	3005A	
240-201241-3	9806-F-20240314-01	Total Recoverable	Water	3005A	
240-201241-4	2000-F-20240314-01	Total Recoverable	Water	3005A	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total Recoverable	Water	3005A	
MB 240-606457/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-606457/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-606457/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-201241-4 MS	2000-F-20240314-01	Total Recoverable	Water	3005A	
240-201241-4 MSD	2000-F-20240314-01	Total Recoverable	Water	3005A	

Prep Batch: 606460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	7470A	
240-201241-2	9801-F-20240314-01	Total/NA	Water	7470A	
240-201241-3	9806-F-20240314-01	Total/NA	Water	7470A	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	7470A	
MB 240-606460/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-606460/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 606604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	7470A	606460
240-201241-2	9801-F-20240314-01	Total/NA	Water	7470A	606460
240-201241-3	9806-F-20240314-01	Total/NA	Water	7470A	606460
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	7470A	606460
MB 240-606460/1-A	Method Blank	Total/NA	Water	7470A	606460
LCS 240-606460/2-A	Lab Control Sample	Total/NA	Water	7470A	606460

Prep Batch: 606623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-4	2000-F-20240314-01	Total/NA	Water	7470A	
MB 240-606623/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-606623/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-201241-4 MS	2000-F-20240314-01	Total/NA	Water	7470A	
240-201241-4 MSD	2000-F-20240314-01	Total/NA	Water	7470A	

Analysis Batch: 606660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total Recoverable	Water	6010D	606457
240-201241-2	9801-F-20240314-01	Total Recoverable	Water	6010D	606457
240-201241-3	9806-F-20240314-01	Total Recoverable	Water	6010D	606457
240-201241-4	2000-F-20240314-01	Total Recoverable	Water	6010D	606457
240-201241-5	FIELDBLANK-001-F-20240314-01	Total Recoverable	Water	6010D	606457
MB 240-606457/1-A	Method Blank	Total Recoverable	Water	6010D	606457
LCS 240-606457/2-A	Lab Control Sample	Total Recoverable	Water	6010D	606457
240-201241-4 MS	2000-F-20240314-01	Total Recoverable	Water	6010D	606457
240-201241-4 MSD	2000-F-20240314-01	Total Recoverable	Water	6010D	606457

Metals

Analysis Batch: 606719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total Recoverable	Water	6020B	606457
240-201241-2	9801-F-20240314-01	Total Recoverable	Water	6020B	606457
240-201241-3	9806-F-20240314-01	Total Recoverable	Water	6020B	606457
240-201241-4	2000-F-20240314-01	Total Recoverable	Water	6020B	606457
240-201241-5	FIELDBLANK-001-F-20240314-01	Total Recoverable	Water	6020B	606457
MB 240-606457/1-A	Method Blank	Total Recoverable	Water	6020B	606457
LCS 240-606457/3-A	Lab Control Sample	Total Recoverable	Water	6020B	606457
240-201241-4 MS	2000-F-20240314-01	Total Recoverable	Water	6020B	606457
240-201241-4 MSD	2000-F-20240314-01	Total Recoverable	Water	6020B	606457

Analysis Batch: 606799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-4	2000-F-20240314-01	Total/NA	Water	7470A	606623
MB 240-606623/1-A	Method Blank	Total/NA	Water	7470A	606623
LCS 240-606623/2-A	Lab Control Sample	Total/NA	Water	7470A	606623
240-201241-4 MS	2000-F-20240314-01	Total/NA	Water	7470A	606623
240-201241-4 MSD	2000-F-20240314-01	Total/NA	Water	7470A	606623

Analysis Batch: 606831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-2	9801-F-20240314-01	Total Recoverable	Water	6020B	606457

General Chemistry

Analysis Batch: 606936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	SM 2540C	
240-201241-2	9801-F-20240314-01	Total/NA	Water	SM 2540C	
240-201241-3	9806-F-20240314-01	Total/NA	Water	SM 2540C	
240-201241-4	2000-F-20240314-01	Total/NA	Water	SM 2540C	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	SM 2540C	
MB 240-606936/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-606936/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-201241-4 DU	2000-F-20240314-01	Total/NA	Water	SM 2540C	

Analysis Batch: 607073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	2320B-1997	
240-201241-2	9801-F-20240314-01	Total/NA	Water	2320B-1997	
240-201241-3	9806-F-20240314-01	Total/NA	Water	2320B-1997	
240-201241-4	2000-F-20240314-01	Total/NA	Water	2320B-1997	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	2320B-1997	
MB 240-607073/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-607073/4	Method Blank	Total/NA	Water	2320B-1997	
MB 240-607073/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-607073/29	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-607073/55	Lab Control Sample	Total/NA	Water	2320B-1997	
240-201241-4 DU	2000-F-20240314-01	Total/NA	Water	2320B-1997	

General Chemistry

Analysis Batch: 608421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	300.0	
240-201241-2	9801-F-20240314-01	Total/NA	Water	300.0	
240-201241-2	9801-F-20240314-01	Total/NA	Water	300.0	
240-201241-3	9806-F-20240314-01	Total/NA	Water	300.0	
240-201241-3	9806-F-20240314-01	Total/NA	Water	300.0	
240-201241-4	2000-F-20240314-01	Total/NA	Water	300.0	
240-201241-4	2000-F-20240314-01	Total/NA	Water	300.0	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	300.0	
MB 240-608421/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608421/4	Lab Control Sample	Total/NA	Water	300.0	
240-201241-4 MS	2000-F-20240314-01	Total/NA	Water	300.0	
240-201241-4 MS	2000-F-20240314-01	Total/NA	Water	300.0	
240-201241-4 MSD	2000-F-20240314-01	Total/NA	Water	300.0	
240-201241-4 MSD	2000-F-20240314-01	Total/NA	Water	300.0	

Rad

Prep Batch: 653033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	PrecSep-21	
240-201241-2	9801-F-20240314-01	Total/NA	Water	PrecSep-21	
240-201241-3	9806-F-20240314-01	Total/NA	Water	PrecSep-21	
240-201241-4	2000-F-20240314-01	Total/NA	Water	PrecSep-21	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	PrecSep-21	
MB 160-653033/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-653033/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-201241-4 MS	2000-F-20240314-01	Total/NA	Water	PrecSep-21	
240-201241-4 MSD	2000-F-20240314-01	Total/NA	Water	PrecSep-21	

Prep Batch: 653034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201241-1	9802-F-20240314-01	Total/NA	Water	PrecSep_0	
240-201241-2	9801-F-20240314-01	Total/NA	Water	PrecSep_0	
240-201241-3	9806-F-20240314-01	Total/NA	Water	PrecSep_0	
240-201241-4	2000-F-20240314-01	Total/NA	Water	PrecSep_0	
240-201241-5	FIELDBLANK-001-F-20240314-01	Total/NA	Water	PrecSep_0	
MB 160-653034/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-653034/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-201241-4 MS	2000-F-20240314-01	Total/NA	Water	PrecSep_0	
240-201241-4 MSD	2000-F-20240314-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201241-1

Client Sample ID: 9802-F-20240314-01

Lab Sample ID: 240-201241-1

Date Collected: 03/14/24 10:11

Matrix: Water

Date Received: 03/15/24 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 15:12
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 15:56
Total/NA	Prep	7470A			606460	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 16:28
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 22:11
Total/NA	Analysis	300.0		1	608421	JWW	EET CLE	04/06/24 05:28
Total/NA	Analysis	SM 2540C		1	606936	C5SV	EET CLE	03/21/24 09:39
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656486	SWS	EET SL	04/11/24 09:32
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 9801-F-20240314-01

Lab Sample ID: 240-201241-2

Date Collected: 03/14/24 11:01

Matrix: Water

Date Received: 03/15/24 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 15:17
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 16:04
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		10	606831	AJC	EET CLE	03/20/24 10:49
Total/NA	Prep	7470A			606460	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 16:30
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 22:18
Total/NA	Analysis	300.0		10	608421	JWW	EET CLE	04/06/24 19:56
Total/NA	Analysis	300.0		50	608421	JWW	EET CLE	04/06/24 20:18
Total/NA	Analysis	SM 2540C		1	606936	C5SV	EET CLE	03/21/24 09:39
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656486	SWS	EET SL	04/11/24 09:32
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 9806-F-20240314-01

Lab Sample ID: 240-201241-3

Date Collected: 03/14/24 12:56

Matrix: Water

Date Received: 03/15/24 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 15:21
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 16:06
Total/NA	Prep	7470A			606460	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 16:36
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 22:23
Total/NA	Analysis	300.0		1	608421	JWW	EET CLE	04/06/24 06:55
Total/NA	Analysis	300.0		5	608421	JWW	EET CLE	04/06/24 07:16
Total/NA	Analysis	SM 2540C		1	606936	C5SV	EET CLE	03/21/24 09:39
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 15:03
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: 2000-F-20240314-01

Lab Sample ID: 240-201241-4

Date Collected: 03/14/24 14:33

Matrix: Water

Date Received: 03/15/24 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 14:51
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 15:44
Total/NA	Prep	7470A			606623	BN	EET CLE	03/19/24 14:00
Total/NA	Analysis	7470A		1	606799	TQ6W	EET CLE	03/20/24 11:05
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 22:29
Total/NA	Analysis	300.0		1	608421	JWW	EET CLE	04/06/24 11:15
Total/NA	Analysis	300.0		5	608421	JWW	EET CLE	04/06/24 12:20
Total/NA	Analysis	SM 2540C		1	606936	C5SV	EET CLE	03/21/24 09:39
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 15:03
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Client Sample ID: FIELDBLANK-001-F-20240314-01

Lab Sample ID: 240-201241-5

Date Collected: 03/14/24 15:00

Matrix: Water

Date Received: 03/15/24 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6010D		1	606660	RKT	EET CLE	03/19/24 15:34

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201241-1
Project/Site: Federal CCR Wells

Client Sample ID: FIELDBLANK-001-F-20240314-01
Lab Sample ID: 240-201241-5

Date Collected: 03/14/24 15:00
Matrix: Water
Date Received: 03/15/24 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606457	BN	EET CLE	03/18/24 14:00
Total Recoverable	Analysis	6020B		1	606719	AJC	EET CLE	03/19/24 16:09
Total/NA	Prep	7470A			606460	BN	EET CLE	03/18/24 14:00
Total/NA	Analysis	7470A		1	606604	GK	EET CLE	03/19/24 16:38
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/21/24 22:42
Total/NA	Analysis	300.0		1	608421	JWW	EET CLE	04/06/24 04:44
Total/NA	Analysis	SM 2540C		1	606936	C5SV	EET CLE	03/21/24 09:39
Total/NA	Prep	PrecSep-21			653033	KAK	EET SL	03/19/24 10:21
Total/NA	Analysis	9315		1	656476	SCB	EET SL	04/11/24 15:03
Total/NA	Prep	PrecSep_0			653034	KAK	EET SL	03/19/24 10:29
Total/NA	Analysis	9320		1	656291	SCB	EET SL	04/10/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	657049	EMH	EET SL	04/15/24 15:24

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201241-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201241-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
9802-F-20240314-01	3-14-24	1011	G	Water	N		1	1	2	1	1		
9801-F-20240314-01	3-14-24	1101	G	Water	N		1	1	2	1	1		
9806-F-20240314-01	3-14-24	1256	G	Water	N		1	1	2	1	1		
2000-F-20240314-01	3-14-24	1433	G	Water	N		1	1	2	1	1		
2000-F-20240314-MS-01	3-14-24	1433	G	Water	N	Y	1	1	2	1	1		
2000-F-20240314-MSD-01	3-14-24	1433	G	Water	N	Y	1	1	2	1	1		
Field Blank-001-F-20240314-01	3-14-24	1500	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									

240-201241 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Casto	3-15-24 / 0945	KEMRON	Tom Edwards	3-15-24 1415hrs	Air Control
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3-15-24 1415	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Cleveland Sample Receipt Form/Narrative — Login # : 201241
Barberton Facility

Client Lightstone Generation Gen.y Site Name

Cooler unpacked by: AAtkeson

Cooler Received on 3 15 24 Opened on 3 15 24

FedEx. 1st Grd Exp UPS FAS Waypoint (Client Drop Off) Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 17 (CF +0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	Yes (No)	
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No (NA)	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	
3 Shippers' packing slip attached to the cooler(s)?	Yes (No)	
4. Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No	
9 For each sample, does the COC specify preservatives (Y)N), # of containers (Y)N), and sample type of grab/comp(Y)N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12 Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA	pH Strip Lot# ~~HC316719~~ HC329089
14. Were VOAs on the COC?	Yes (No)	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No (NA)	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes (No)	
17 Was a LL Hg or Me Hg trip blank present?	Yes (No)	

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation Date/Time VOAs Frozen.

Login # : 201241

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 17	0.8	0.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 17	1.5	1.5	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 17	4.2	4.2	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

3/15/2024

Login Container Summary Report

240-201241

4/15/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9802-F-20240314-01	240-201241-A-1	Plastic 60 mL - unpreserved				
9802-F-20240314-01	240-201241-B-1	Plastic 60 mL - unpreserved				
9802-F-20240314-01	240-201241-C-1	Plastic 500ml - unpreserved				
9802-F-20240314-01	240-201241-D-1	Plastic 500ml - with Nitric Acid	<2			
9802-F-20240314-01	240-201241-E-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20240314-01	240-201241-F-1	Plastic 1 liter - Nitric Acid	<2			
9801-F-20240314-01	240-201241-A 2	Plastic 60 mL - unpreserved				
9801-F-20240314-01	240-201241-B-2	Plastic 60 mL - unpreserved				
9801-F-20240314-01	240-201241-C-2	Plastic 500ml - unpreserved				
9801-F-20240314-01	240-201241-D-2	Plastic 500ml - with Nitric Acid	<2			
9801-F-20240314-01	240-201241 E-2	Plastic 1 liter - Nitric Acid	<2			
9801-F-20240314-01	240-201241-F-2	Plastic 1 liter - Nitric Acid	<2			
9806-F-20240314-01	240-201241-A-3	Plastic 60 mL - unpreserved				
9806-F-20240314-01	240 201241-B-3	Plastic 60 mL - unpreserved				
9806-F-20240314-01	240-201241-C-3	Plastic 500ml - unpreserved				
9806 F-20240314-01	240-201241-D-3	Plastic 500ml - with Nitric Acid	<2			
9806-F-20240314-01	240-201241-E-3	Plastic 1 liter - Nitric Acid	<2			
9806-F-20240314-01	240-201241-F-3	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240314-01	240-201241-A-4	Plastic 60 mL - unpreserved				
2000-F-20240314-01	240-201241-A-4 DU	Plastic 60 mL - unpreserved				
2000 F-20240314-01	240-201241-A-4 MS	Plastic 60 mL - unpreserved				
2000 F-20240314-01	240-201241-A-4 MSD	Plastic 60 mL - unpreserved				
2000-F-20240314-01	240-201241-B-4	Plastic 60 mL - unpreserved				
2000-F-20240314-01	240-201241-B-4 DU	Plastic 60 mL - unpreserved				
2000-F-20240314-01	240-201241-B-4 MS	Plastic 500ml - with Nitric Acid	<2			
2000-F-20240314-01	240-201241-B-4 MSD	Plastic 500ml - with Nitric Acid	<2			
2000 F-20240314-01	240-201241-C-4	Plastic 500ml - unpreserved				
2000-F-20240314-01	240-201241-C-4 DU	Plastic 500ml - unpreserved				
2000 F-20240314-01	240-201241-C-4 MS	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240314-01	240-201241 C-4 MSD	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240314-01	240-201241 D-4	Plastic 500ml - with Nitric Acid	<2			
2000-F-20240314-01	240-201241-D-4 DU	Plastic 500ml - unpreserved				
2000-F-20240314-01	240-201241-D-4 MS	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2000-F 20240314-01	240-201241-D-4 MSD	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240314-01	240-201241-E-4	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240314-01	240-201241-F-4	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-20240314-01	240-201241-A-5	Plastic 60 mL unpreserved				
FIELDBLANK-001-F-20240314-01	240-201241 B-5	Plastic 60 mL - unpreserved				
FIELDBLANK-001-F-20240314-01	240-201241-C-5	Plastic 500ml - unpreserved				
FIELDBLANK-001-F-20240314-01	240-201241-D-5	Plastic 500ml - with Nitric Acid	<2			
FIELDBLANK-001-F 20240314-01	240-201241-E-5	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-20240314-01	240-201241-F-5	Plastic 1 liter - Nitric Acid	<2			

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-201241-1

Login Number: 201241
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 03/18/24 01:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/19/2024 11:03:25 AM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-201413-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
4/19/2024 11:03:25 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-201413-1 — Eurofins Cleveland

Job Narrative
240-201413-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/20/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.2°C, 3.4°C and 3.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 batch 653870
The LCS recovered at (136%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (69-145%) per method requirements. The LCS passes, no further action is required

(LCS 160-653870/2-A)

Method 9320_Ra228: Radium-228 batch 653870
The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: 94139-F-20240318-01 (240-201413-8). Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201413-1
Project/Site: Federal CCR Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-201413-1	93108-F-20240315-01	Water	03/15/24 10:44	03/20/24 08:00
240-201413-2	2022-12-F-20240315-01	Water	03/15/24 11:41	03/20/24 08:00
240-201413-3	2022-13-F-20240315-01	Water	03/15/24 12:32	03/20/24 08:00
240-201413-4	94137-F-20240315-01	Water	03/15/24 13:41	03/20/24 08:00
240-201413-5	DUP-004-F-20240315-01	Water	03/15/24 00:00	03/20/24 08:00
240-201413-6	94136-F-20240315-01	Water	03/15/24 14:27	03/20/24 08:00
240-201413-7	EB-001-F-20240315-01	Water	03/15/24 14:45	03/20/24 08:00
240-201413-8	94139-F-20240318-01	Water	03/18/24 11:09	03/20/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 93108-F-20240315-01 — Lab Sample ID: 240-201413-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	440		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	15000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.2	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.19	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	43		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4300		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	77		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.38	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	450		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	450		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1800		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	3.2		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	13		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	2900		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-12-F-20240315-01 — Lab Sample ID: 240-201413-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	61	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	17		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	83000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.21	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	23		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.38	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	20		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	270		5.0	1.7	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 2022-12-F-20240315-01 (Continued)

Lab Sample ID: 240-201413-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	660		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-13-F-20240315-01

Lab Sample ID: 240-201413-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	230		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	260		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	15000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.27	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	31		16	3.3	ug/L	2		6020B	Total Recoverable
Magnesium	3900		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	82		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		2000	660	ug/L	2		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1800		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.0		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	8.0		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	2800		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94137-F-20240315-01

Lab Sample ID: 240-201413-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	42		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	140000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	15		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	78		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	9.6		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	44000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	2.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	58000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	360		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	360		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 94137-F-20240315-01 (Continued)

Lab Sample ID: 240-201413-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.093		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	330		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	830		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-004-F-20240315-01

Lab Sample ID: 240-201413-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	45		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	150000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	13		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	66		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	11		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	47000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	2.1	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	61000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	28		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.092		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	340		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	820		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94136-F-20240315-01

Lab Sample ID: 240-201413-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Barium	100		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	13000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	3.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.48	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	29		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3400		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	14		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1800		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 94136-F-20240315-01 (Continued)

Lab Sample ID: 240-201413-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	690000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	910		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.2		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	51		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1700		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20240315-01

Lab Sample ID: 240-201413-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity	3.6	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.6	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: 94139-F-20240318-01

Lab Sample ID: 240-201413-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	100		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	8900		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.70	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	3.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	19		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	2800		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	180		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	520000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	23		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	480		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.7		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	62		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 93108-F-20240315-01
Date Collected: 03/15/24 10:44
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	390		100	57	ug/L		03/20/24 14:00	03/23/24 02:39	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:08	1
Arsenic	1.6	J	5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:08	1
Barium	440		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:08	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:08	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:08	1
Calcium	15000		1000	250	ug/L		03/20/24 14:00	03/21/24 17:08	1
Chromium	1.2	J	5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:08	1
Cobalt	0.19	J	1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:08	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:08	1
Lithium	43		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 11:54	1
Magnesium	4300		1000	61	ug/L		03/20/24 14:00	03/21/24 17:08	1
Molybdenum	77		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:08	1
Potassium	1900		1000	220	ug/L		03/20/24 14:00	03/21/24 17:08	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:08	1
Sodium	1200000		1000	330	ug/L		03/20/24 14:00	03/21/24 17:08	1
Thallium	0.38	J	1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	450		5.0	2.6	mg/L			03/22/24 01:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	450		5.0	2.6	mg/L			03/22/24 01:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/22/24 01:27	1
Chloride (EPA 300.0)	1800		20	2.6	mg/L			04/05/24 00:29	20
Fluoride (EPA 300.0)	3.2		0.10	0.048	mg/L			04/04/24 23:24	2
Sulfate (EPA 300.0)	13		2.0	0.70	mg/L			04/04/24 23:24	2
Total Dissolved Solids (SM 2540C)	2900		50	39	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.789		0.303	0.312	1.00	0.333	pCi/L	03/25/24 09:33	04/18/24 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/25/24 09:33*	*04/18/24 07:26*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.17		0.499	0.511	1.00	0.656	pCi/L	03/25/24 09:47	04/17/24 11:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 93108-F-20240315-01
Date Collected: 03/15/24 10:44
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.96**		0.584	0.599	5.00	0.656	pCi/L		04/18/24 15:26	1

Client Sample ID: 2022-12-F-20240315-01
Date Collected: 03/15/24 11:41
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	61	J	100	57	ug/L		03/20/24 14:00	03/23/24 03:09	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:25	1
Arsenic	ND		5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:25	1
Barium	17		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:25	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:25	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:25	1
Calcium	83000		1000	250	ug/L		03/20/24 14:00	03/21/24 17:25	1
Chromium	ND		5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:25	1
Cobalt	0.21	J	1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:25	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:25	1
Lithium	23		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 12:07	1
Magnesium	24000		1000	61	ug/L		03/20/24 14:00	03/21/24 17:25	1
Molybdenum	ND		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:25	1
Potassium	2800		1000	220	ug/L		03/20/24 14:00	03/21/24 17:25	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:25	1
Sodium	110000		1000	330	ug/L		03/20/24 14:00	03/21/24 17:25	1
Thallium	0.38	J	1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			03/22/24 01:33	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			03/22/24 01:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/22/24 01:33	1
Chloride (EPA 300.0)	20		1.0	0.13	mg/L			04/04/24 18:20	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			04/04/24 18:20	1
Sulfate (EPA 300.0)	270		5.0	1.7	mg/L			04/04/24 18:42	5
Total Dissolved Solids (SM 2540C)	660		10	7.8	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.298	U	0.241	0.242	1.00	0.361	pCi/L	03/25/24 09:33	04/18/24 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*30 - 110*	*03/25/24 09:33*	*04/18/24 07:26*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.683	U	0.460	0.464	1.00	0.689	pCi/L	03/25/24 09:47	04/17/24 11:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 2022-12-F-20240315-01
Date Collected: 03/15/24 11:41
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*
Y Carrier	*84.1*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.981**		0.519	0.523	5.00	0.689	pCi/L		04/18/24 15:26	1

Client Sample ID: 2022-13-F-20240315-01
Date Collected: 03/15/24 12:32
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	230		100	57	ug/L		03/20/24 14:00	03/23/24 03:14	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:27	1
Arsenic	1.8	J	5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:27	1
Barium	260		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:27	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:27	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:27	1
Calcium	15000		1000	250	ug/L		03/20/24 14:00	03/21/24 17:27	1
Chromium	ND		5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:27	1
Cobalt	0.27	J	1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:27	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:27	1
Lithium	31		16	3.3	ug/L		03/20/24 14:00	03/25/24 12:09	2
Magnesium	3900		1000	61	ug/L		03/20/24 14:00	03/21/24 17:27	1
Molybdenum	82		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:27	1
Potassium	2400		1000	220	ug/L		03/20/24 14:00	03/21/24 17:27	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:27	1
Sodium	1200000		2000	660	ug/L		03/20/24 14:00	03/25/24 12:09	2
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			03/22/24 01:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			03/22/24 01:39	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/22/24 01:39	1
Chloride (EPA 300.0)	1800		20	2.6	mg/L			04/05/24 01:13	20
Fluoride (EPA 300.0)	2.0		0.10	0.048	mg/L			04/05/24 00:51	2
Sulfate (EPA 300.0)	8.0		2.0	0.70	mg/L			04/05/24 00:51	2
Total Dissolved Solids (SM 2540C)	2800		50	39	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.390		0.198	0.201	1.00	0.246	pCi/L	03/25/24 09:33	04/18/24 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/25/24 09:33*	*04/18/24 07:26*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.575		0.329	0.333	1.00	0.469	pCi/L	03/25/24 09:47	04/17/24 11:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 2022-13-F-20240315-01
Date Collected: 03/15/24 12:32
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.965**		0.384	0.389	5.00	0.469	pCi/L		04/18/24 15:26	1

Client Sample ID: 94137-F-20240315-01

Lab Sample ID: 240-201413-4

Date Collected: 03/15/24 13:41

Matrix: Water

Date Received: 03/20/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/20/24 14:00	03/23/24 03:18	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:30	1
Arsenic	**3.0**	**J**	5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:30	1
Barium	**42**		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:30	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:30	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:30	1
Calcium	**140000**		1000	250	ug/L		03/20/24 14:00	03/21/24 17:30	1
Chromium	**15**		5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:30	1
Cobalt	**78**		1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:30	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:30	1
Lithium	**9.6**		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 12:17	1
Magnesium	**44000**		1000	61	ug/L		03/20/24 14:00	03/21/24 17:30	1
Molybdenum	**2.2**	**J**	5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:30	1
Potassium	**1600**		1000	220	ug/L		03/20/24 14:00	03/21/24 17:30	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:30	1
Sodium	**58000**		1000	330	ug/L		03/20/24 14:00	03/21/24 17:30	1
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**360**		5.0	2.6	mg/L			03/22/24 01:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**360**		5.0	2.6	mg/L			03/22/24 01:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/22/24 01:44	1
Chloride (EPA 300.0)	**27**		1.0	0.13	mg/L			04/04/24 17:37	1
Fluoride (EPA 300.0)	**0.093**		0.050	0.024	mg/L			04/04/24 17:37	1
Sulfate (EPA 300.0)	**330**		5.0	1.7	mg/L			04/04/24 17:58	5
Total Dissolved Solids (SM 2540C)	**830**		10	7.8	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0337	U	0.190	0.190	1.00	0.398	pCi/L	03/25/24 09:33	04/18/24 07:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.5*		*30 - 110*	*03/25/24 09:33*	*04/18/24 07:26*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.743	U	0.523	0.527	1.00	0.787	pCi/L	03/25/24 09:47	04/17/24 11:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 94137-F-20240315-01
Date Collected: 03/15/24 13:41
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.5*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*
Y Carrier	*80.7*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:56*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.709	U	0.556	0.560	5.00	0.787	pCi/L		04/18/24 15:26	1

Client Sample ID: DUP-004-F-20240315-01

Date Collected: 03/15/24 00:00
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/20/24 14:00	03/23/24 03:23	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:32	1
Arsenic	**3.4**	**J**	5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:32	1
Barium	**45**		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:32	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:32	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:32	1
Calcium	**150000**		1000	250	ug/L		03/20/24 14:00	03/21/24 17:32	1
Chromium	**13**		5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:32	1
Cobalt	**66**		1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:32	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:32	1
Lithium	**11**		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 12:22	1
Magnesium	**47000**		1000	61	ug/L		03/20/24 14:00	03/21/24 17:32	1
Molybdenum	**2.1**	**J**	5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:32	1
Potassium	**1700**		1000	220	ug/L		03/20/24 14:00	03/21/24 17:32	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:32	1
Sodium	**61000**		1000	330	ug/L		03/20/24 14:00	03/21/24 17:32	1
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**350**		5.0	2.6	mg/L			03/22/24 01:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**350**		5.0	2.6	mg/L			03/22/24 01:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/22/24 01:50	1
Chloride (EPA 300.0)	**28**		1.0	0.13	mg/L			04/04/24 20:31	1
Fluoride (EPA 300.0)	**0.092**		0.050	0.024	mg/L			04/04/24 20:31	1
Sulfate (EPA 300.0)	**340**		5.0	1.7	mg/L			04/04/24 20:52	5
Total Dissolved Solids (SM 2540C)	**820**		10	7.8	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.210	U	0.156	0.157	1.00	0.221	pCi/L	03/25/24 09:49	04/18/24 09:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*30 - 110*	*03/25/24 09:49*	*04/18/24 09:25*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.95**		0.655	0.679	1.00	0.772	pCi/L	03/25/24 09:54	04/15/24 12:00	1

Client Sample ID: DUP-004-F-20240315-01
Date Collected: 03/15/24 00:00
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*30 - 110*	*03/25/24 09:54*	*04/15/24 12:00*	*1*
Y Carrier	*79.6*		*30 - 110*	*03/25/24 09:54*	*04/15/24 12:00*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.16**		0.673	0.697	5.00	0.772	pCi/L		04/18/24 15:30	1

Client Sample ID: 94136-F-20240315-01
Date Collected: 03/15/24 14:27
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-6
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		03/20/24 14:00	03/23/24 03:27	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:35	1
Arsenic	ND		5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:35	1
Barium	100		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:35	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:35	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:35	1
Calcium	13000		1000	250	ug/L		03/20/24 14:00	03/21/24 17:35	1
Chromium	3.5	J	5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:35	1
Cobalt	0.48	J	1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:35	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:35	1
Lithium	29		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 12:24	1
Magnesium	3400		1000	61	ug/L		03/20/24 14:00	03/21/24 17:35	1
Molybdenum	14		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:35	1
Potassium	1800		1000	220	ug/L		03/20/24 14:00	03/21/24 17:35	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:35	1
Sodium	690000		1000	330	ug/L		03/20/24 14:00	03/21/24 17:35	1
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	330		5.0	2.6	mg/L			03/22/24 02:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	330		5.0	2.6	mg/L			03/22/24 02:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/22/24 02:05	1
Chloride (EPA 300.0)	910		10	1.3	mg/L			04/04/24 23:03	10
Fluoride (EPA 300.0)	1.2		0.10	0.048	mg/L			04/04/24 22:41	2
Sulfate (EPA 300.0)	51		2.0	0.70	mg/L			04/04/24 22:41	2
Total Dissolved Solids (SM 2540C)	1700		40	31	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.556		0.215	0.221	1.00	0.229	pCi/L	03/25/24 09:49	04/18/24 09:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*03/25/24 09:49*	*04/18/24 09:25*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.792		0.492	0.498	1.00	0.722	pCi/L	03/25/24 09:54	04/15/24 12:00	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 94136-F-20240315-01
Date Collected: 03/15/24 14:27
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-6
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*03/25/24 09:54*	*04/15/24 12:00*	*1*
Y Carrier	*84.9*		*30 - 110*	*03/25/24 09:54*	*04/15/24 12:00*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.35**		0.537	0.545	5.00	0.722	pCi/L		04/18/24 15:30	1

Client Sample ID: EB-001-F-20240315-01

Date Collected: 03/15/24 14:45
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-7

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/20/24 14:00	03/23/24 03:32	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:37	1
Arsenic	ND		5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:37	1
Barium	ND		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:37	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:37	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:37	1
Calcium	ND		1000	250	ug/L		03/20/24 14:00	03/21/24 17:37	1
Chromium	ND		5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:37	1
Cobalt	ND		1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:37	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:37	1
Lithium	ND		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 13:07	1
Magnesium	ND		1000	61	ug/L		03/20/24 14:00	03/21/24 17:37	1
Molybdenum	ND		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:37	1
Potassium	ND		1000	220	ug/L		03/20/24 14:00	03/21/24 17:37	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:37	1
Sodium	ND		1000	330	ug/L		03/20/24 14:00	03/21/24 17:37	1
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:37	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**3.6**	**J B**	5.0	2.6	mg/L			03/29/24 11:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**3.6**	**J B**	5.0	2.6	mg/L			03/29/24 11:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			03/29/24 11:35	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/04/24 16:32	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/04/24 16:32	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/04/24 16:32	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			03/22/24 11:23	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00234	U	0.0694	0.0694	1.00	0.151	pCi/L	03/25/24 09:49	04/18/24 09:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*30 - 110*	*03/25/24 09:49*	*04/18/24 09:25*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.617	U	0.468	0.472	1.00	0.729	pCi/L	03/25/24 09:54	04/15/24 12:00	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: EB-001-F-20240315-01
Date Collected: 03/15/24 14:45
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-7
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*30 - 110*	*03/25/24 09:54*	*04/15/24 12:00*	*1*
Y Carrier	*79.6*		*30 - 110*	*03/25/24 09:54*	*04/15/24 12:00*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.615	U	0.473	0.477	5.00	0.729	pCi/L		04/18/24 15:30	1

Client Sample ID: 94139-F-20240318-01
Date Collected: 03/18/24 11:09
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-8
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		03/20/24 14:00	03/23/24 03:44	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:40	1
Arsenic	3.7	J	5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:40	1
Barium	100		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:40	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:40	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:40	1
Calcium	8900		1000	250	ug/L		03/20/24 14:00	03/21/24 17:40	1
Chromium	1.9	J	5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:40	1
Cobalt	0.70	J	1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:40	1
Lead	3.6		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:40	1
Lithium	19		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 12:30	1
Magnesium	2800		1000	61	ug/L		03/20/24 14:00	03/21/24 17:40	1
Molybdenum	180		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:40	1
Potassium	1400		1000	220	ug/L		03/20/24 14:00	03/21/24 17:40	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:40	1
Sodium	520000		1000	330	ug/L		03/20/24 14:00	03/21/24 17:40	1
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	530		5.0	2.6	mg/L			04/01/24 10:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			04/01/24 10:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	23		5.0	2.6	mg/L			04/01/24 10:09	1
Chloride (EPA 300.0)	480		10	1.3	mg/L			04/04/24 22:19	10
Fluoride (EPA 300.0)	4.7		0.050	0.024	mg/L			04/04/24 21:57	1
Sulfate (EPA 300.0)	62		1.0	0.35	mg/L			04/04/24 21:57	1
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			03/25/24 11:36	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.409		0.265	0.268	1.00	0.352	pCi/L	03/25/24 09:49	04/18/24 09:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.5*		*30 - 110*	*03/25/24 09:49*	*04/18/24 09:25*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.47	G	0.876	0.886	1.00	1.28	pCi/L	03/25/24 09:54	04/15/24 11:49	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 94139-F-20240318-01
Date Collected: 03/18/24 11:09
Date Received: 03/20/24 08:00

Lab Sample ID: 240-201413-8
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.5*		*30 - 110*	*03/25/24 09:54*	*04/15/24 11:49*	*1*
Y Carrier	*84.1*		*30 - 110*	*03/25/24 09:54*	*04/15/24 11:49*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.88**		0.915	0.926	5.00	1.28	pCi/L		04/18/24 15:30	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
		Ba						
Lab Sample ID	Client Sample ID	(30-110)						
240-201413-1	93108-F-20240315-01	102						
240-201413-2	2022-12-F-20240315-01	97.3						
240-201413-3	2022-13-F-20240315-01	102						
240-201413-4	94137-F-20240315-01	84.5						
240-201413-5	DUP-004-F-20240315-01	87.3						
240-201413-6	94136-F-20240315-01	91.8						
240-201413-7	EB-001-F-20240315-01	89.0						
240-201413-8	94139-F-20240318-01	78.5						
LCS 160-653867/2-A	Lab Control Sample	99.5						
LCS 160-653869/2-A	Lab Control Sample	92.3						
MB 160-653867/1-A	Method Blank	101						
MB 160-653869/1-A	Method Blank	93.8						

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
		Ba	Y					
Lab Sample ID	Client Sample ID	(30-110)	(30-110)					
240-201413-1	93108-F-20240315-01	102	80.7					
240-201413-2	2022-12-F-20240315-01	97.3	84.1					
240-201413-3	2022-13-F-20240315-01	102	80.7					
240-201413-4	94137-F-20240315-01	84.5	80.7					
240-201413-5	DUP-004-F-20240315-01	87.3	79.6					
240-201413-6	94136-F-20240315-01	91.8	84.9					
240-201413-7	EB-001-F-20240315-01	89.0	79.6					
240-201413-8	94139-F-20240318-01	78.5	84.1					
LCS 160-653868/2-A	Lab Control Sample	99.5	82.2					
LCS 160-653870/2-A	Lab Control Sample	92.3	81.5					
MB 160-653868/1-A	Method Blank	101	83.0					
MB 160-653870/1-A	Method Blank	93.8	81.5					

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-606785/1-A
Matrix: Water
Analysis Batch: 607207

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/20/24 14:00	03/23/24 02:31	1

Lab Sample ID: LCS 240-606785/2-A
Matrix: Water
Analysis Batch: 607207

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	932		ug/L		93	80 - 120		

Lab Sample ID: 240-201413-1 MS
Matrix: Water
Analysis Batch: 607207

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	390		1000	1330		ug/L		94	75 - 125		

Lab Sample ID: 240-201413-1 MSD
Matrix: Water
Analysis Batch: 607207

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	390		1000	1280		ug/L		89	75 - 125	4	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-606785/1-A
Matrix: Water
Analysis Batch: 607070

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/20/24 14:00	03/21/24 17:03	1
Arsenic	ND		5.0	0.75	ug/L		03/20/24 14:00	03/21/24 17:03	1
Barium	ND		5.0	2.2	ug/L		03/20/24 14:00	03/21/24 17:03	1
Beryllium	ND		1.0	0.62	ug/L		03/20/24 14:00	03/21/24 17:03	1
Cadmium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:03	1
Calcium	ND		1000	250	ug/L		03/20/24 14:00	03/21/24 17:03	1
Chromium	ND		5.0	1.2	ug/L		03/20/24 14:00	03/21/24 17:03	1
Cobalt	ND		1.0	0.19	ug/L		03/20/24 14:00	03/21/24 17:03	1
Lead	ND		1.0	0.45	ug/L		03/20/24 14:00	03/21/24 17:03	1
Magnesium	ND		1000	61	ug/L		03/20/24 14:00	03/21/24 17:03	1
Molybdenum	ND		5.0	1.1	ug/L		03/20/24 14:00	03/21/24 17:03	1
Potassium	ND		1000	220	ug/L		03/20/24 14:00	03/21/24 17:03	1
Selenium	ND		5.0	0.89	ug/L		03/20/24 14:00	03/21/24 17:03	1
Sodium	ND		1000	330	ug/L		03/20/24 14:00	03/21/24 17:03	1
Thallium	ND		1.0	0.20	ug/L		03/20/24 14:00	03/21/24 17:03	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 240-606785/1-A
Matrix: Water
Analysis Batch: 607394

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		8.0	1.7	ug/L		03/20/24 14:00	03/25/24 11:49	1

Lab Sample ID: LCS 240-606785/3-A
Matrix: Water
Analysis Batch: 607070

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	93.4		ug/L		93	80 - 120
Arsenic	1000	914		ug/L		91	80 - 120
Barium	1000	935		ug/L		93	80 - 120
Beryllium	500	451		ug/L		90	80 - 120
Cadmium	500	486		ug/L		97	80 - 120
Calcium	25000	23500		ug/L		94	80 - 120
Chromium	500	458		ug/L		92	80 - 120
Cobalt	500	469		ug/L		94	80 - 120
Lead	500	488		ug/L		98	80 - 120
Magnesium	25000	23900		ug/L		95	80 - 120
Molybdenum	500	461		ug/L		92	80 - 120
Potassium	25000	23700		ug/L		95	80 - 120
Selenium	1000	900		ug/L		90	80 - 120
Sodium	25000	24100		ug/L		96	80 - 120
Thallium	1000	983		ug/L		98	80 - 120

Lab Sample ID: LCS 240-606785/3-A
Matrix: Water
Analysis Batch: 607394

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	500	531		ug/L		106	80 - 120

Lab Sample ID: 240-201413-1 MS
Matrix: Water
Analysis Batch: 607070

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	103		ug/L		103	80 - 120
Arsenic	1.6	J	1000	1070		ug/L		107	80 - 120
Barium	440		1000	1520		ug/L		108	80 - 120
Beryllium	ND		500	500		ug/L		100	80 - 120
Cadmium	ND		500	497		ug/L		99	80 - 120
Calcium	15000		25000	39800		ug/L		100	80 - 120
Chromium	1.2	J	500	531		ug/L		106	80 - 120
Cobalt	0.19	J	500	532		ug/L		106	80 - 120
Lead	ND		500	495		ug/L		99	80 - 120
Magnesium	4300		25000	28800		ug/L		98	80 - 120
Molybdenum	77		500	612		ug/L		107	80 - 120
Potassium	1900		25000	26800		ug/L		99	80 - 120
Selenium	ND		1000	945		ug/L		95	80 - 120
Sodium	1200000		25000	1250000	4	ug/L		148	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-201413-1 MS
Matrix: Water
Analysis Batch: 607070

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.38	J	1000	990		ug/L		99	80 - 120

Lab Sample ID: 240-201413-1 MS
Matrix: Water
Analysis Batch: 607394

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	43		500	596		ug/L		111	80 - 120

Lab Sample ID: 240-201413-1 MSD
Matrix: Water
Analysis Batch: 607070

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	102		ug/L		102	80 - 120	1	20
Arsenic	1.6	J	1000	1060		ug/L		106	80 - 120	1	20
Barium	440		1000	1470		ug/L		103	80 - 120	3	20
Beryllium	ND		500	487		ug/L		97	80 - 120	3	20
Cadmium	ND		500	498		ug/L		100	80 - 120	0	20
Calcium	15000		25000	38900		ug/L		97	80 - 120	2	20
Chromium	1.2	J	500	518		ug/L		104	80 - 120	2	20
Cobalt	0.19	J	500	521		ug/L		104	80 - 120	2	20
Lead	ND		500	497		ug/L		99	80 - 120	0	20
Magnesium	4300		25000	28600		ug/L		97	80 - 120	1	20
Molybdenum	77		500	595		ug/L		104	80 - 120	3	20
Potassium	1900		25000	26500		ug/L		98	80 - 120	1	20
Selenium	ND		1000	957		ug/L		96	80 - 120	1	20
Sodium	1200000		25000	1230000	4	ug/L		59	80 - 120	2	20
Thallium	0.38	J	1000	996		ug/L		100	80 - 120	1	20

Lab Sample ID: 240-201413-1 MSD
Matrix: Water
Analysis Batch: 607394

Client Sample ID: 93108-F-20240315-01
Prep Type: Total Recoverable
Prep Batch: 606785

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	43		500	604		ug/L		112	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-606786/1-A
Matrix: Water
Analysis Batch: 606959

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/20/24 14:00	03/21/24 14:17	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-606786/2-A
Matrix: Water
Analysis Batch: 606959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606786

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.97		ug/L		99	80 - 120		

Lab Sample ID: 240-201413-1 MS
Matrix: Water
Analysis Batch: 606959

Client Sample ID: 93108-F-20240315-01
Prep Type: Total/NA
Prep Batch: 606786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		1.00	1.15		ug/L		115	80 - 120		

Lab Sample ID: 240-201413-1 MSD
Matrix: Water
Analysis Batch: 606959

Client Sample ID: 93108-F-20240315-01
Prep Type: Total/NA
Prep Batch: 606786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.06		ug/L		106	80 - 120	8	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-607073/109
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/22/24 02:01	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/22/24 02:01	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/22/24 02:01	1

Lab Sample ID: MB 240-607073/56
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 21:37	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 21:37	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 21:37	1

Lab Sample ID: MB 240-607073/83
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			03/21/24 23:55	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 23:55	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/21/24 23:55	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-607073/108
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	83.8		mg/L		104	86 - 123

Lab Sample ID: LCS 240-607073/82
Matrix: Water
Analysis Batch: 607073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	83.3		mg/L		103	86 - 123

Lab Sample ID: 240-201413-6 DU
Matrix: Water
Analysis Batch: 607073

Client Sample ID: 94136-F-20240315-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	330		335		mg/L		0.5	20
Bicarbonate Alkalinity as CaCO3	330		324		mg/L		3	20
Carbonate Alkalinity as CaCO3	ND		10.5		mg/L		NC	20

Lab Sample ID: MB 240-607894/4
Matrix: Water
Analysis Batch: 607894

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	3.80	J	5.0	2.6	mg/L			03/29/24 09:46	1
Bicarbonate Alkalinity as CaCO3	3.80	J	5.0	2.6	mg/L			03/29/24 09:46	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			03/29/24 09:46	1

Lab Sample ID: LCS 240-607894/3
Matrix: Water
Analysis Batch: 607894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	81.5		mg/L		101	86 - 123

Lab Sample ID: MB 240-608090/4
Matrix: Water
Analysis Batch: 608090

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/01/24 09:56	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/01/24 09:56	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/01/24 09:56	1

Lab Sample ID: LCS 240-608090/3
Matrix: Water
Analysis Batch: 608090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.4		mg/L		105	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-608434/3
Matrix: Water
Analysis Batch: 608434

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/04/24 15:48	1
Fluoride	ND		0.050	0.024	mg/L			04/04/24 15:48	1
Sulfate	ND		1.0	0.35	mg/L			04/04/24 15:48	1

Lab Sample ID: LCS 240-608434/4
Matrix: Water
Analysis Batch: 608434

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.9		mg/L		102	90 - 110		
Fluoride			2.50	2.65		mg/L		106	90 - 110		
Sulfate			50.0	51.7		mg/L		103	90 - 110		

Lab Sample ID: 240-201413-7 MS
Matrix: Water
Analysis Batch: 608434

Client Sample ID: EB-001-F-20240315-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		50.0	53.0		mg/L		106	80 - 120		
Fluoride	ND		2.50	2.71		mg/L		108	80 - 120		
Sulfate	ND		50.0	53.2		mg/L		106	80 - 120		

Lab Sample ID: 240-201413-7 MSD
Matrix: Water
Analysis Batch: 608434

Client Sample ID: EB-001-F-20240315-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	52.8		mg/L		106	80 - 120	0	15
Fluoride	ND		2.50	2.71		mg/L		108	80 - 120	0	15
Sulfate	ND		50.0	53.1		mg/L		106	80 - 120	0	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-607134/1
Matrix: Water
Analysis Batch: 607134

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/22/24 11:23	1

Lab Sample ID: LCS 240-607134/2
Matrix: Water
Analysis Batch: 607134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			505	480		mg/L		95	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 240-201413-2 DU
Matrix: Water
Analysis Batch: 607134

Client Sample ID: 2022-12-F-20240315-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	660		657		mg/L		0.6	20

Lab Sample ID: MB 240-607338/1
Matrix: Water
Analysis Batch: 607338

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/25/24 11:36	1

Lab Sample ID: LCS 240-607338/2
Matrix: Water
Analysis Batch: 607338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	483		mg/L		96	80 - 120

Lab Sample ID: 240-201413-8 DU
Matrix: Water
Analysis Batch: 607338

Client Sample ID: 94139-F-20240318-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1290		mg/L		3	20

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-653867/1-A
Matrix: Water
Analysis Batch: 657471

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653867

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09025	U	0.117	0.118	1.00	0.195	pCi/L	03/25/24 09:33	04/18/24 07:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*03/25/24 09:33*	*04/18/24 07:17*	*1*

Lab Sample ID: LCS 160-653867/2-A
Matrix: Water
Analysis Batch: 657471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653867

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.48		1.25	1.00	0.180	pCi/L	93	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.5*		*30 - 110*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: MB 160-653869/1-A
Matrix: Water
Analysis Batch: 657226

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653869

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05918	U	0.0867	0.0869	1.00	0.225	pCi/L	03/25/24 09:49	04/16/24 09:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*30 - 110*	*03/25/24 09:49*	*04/16/24 09:55*	*1*

Lab Sample ID: LCS 160-653869/2-A
Matrix: Water
Analysis Batch: 657226

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653869

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	9.127		1.17	1.00	0.281	pCi/L	81	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.3*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-653868/1-A
Matrix: Water
Analysis Batch: 657398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653868

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2013	U	0.290	0.291	1.00	0.489	pCi/L	03/25/24 09:47	04/17/24 11:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:39*	*1*
Y Carrier	*83.0*		*30 - 110*	*03/25/24 09:47*	*04/17/24 11:39*	*1*

Lab Sample ID: LCS 160-653868/2-A
Matrix: Water
Analysis Batch: 657398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653868

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.02	8.831		1.19	1.00	0.436	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.5*		*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-653870/1-A
Matrix: Water
Analysis Batch: 656849

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653870

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.04036	U	0.335	0.335	1.00	0.642	pCi/L	03/25/24 09:54	04/15/24 13:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*30 - 110*	*03/25/24 09:54*	*04/15/24 13:23*	*1*
Y Carrier	*81.5*		*30 - 110*	*03/25/24 09:54*	*04/15/24 13:23*	*1*

Lab Sample ID: LCS 160-653870/2-A
Matrix: Water
Analysis Batch: 657002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653870

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.03	12.32		1.58	1.00	0.560	pCi/L	136	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.3*		*30 - 110*
Y Carrier	*81.5*		*30 - 110*

Metals

Prep Batch: 606785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-2	2022-12-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-3	2022-13-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-4	94137-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-5	DUP-004-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-6	94136-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-7	EB-001-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-8	94139-F-20240318-01	Total Recoverable	Water	3005A	
MB 240-606785/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-606785/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-606785/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-201413-1 MS	93108-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-1 MS	93108-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-1 MSD	93108-F-20240315-01	Total Recoverable	Water	3005A	
240-201413-1 MSD	93108-F-20240315-01	Total Recoverable	Water	3005A	

Prep Batch: 606786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	7470A	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	7470A	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	7470A	
240-201413-4	94137-F-20240315-01	Total/NA	Water	7470A	
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	7470A	
240-201413-6	94136-F-20240315-01	Total/NA	Water	7470A	
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	7470A	
240-201413-8	94139-F-20240318-01	Total/NA	Water	7470A	
MB 240-606786/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-606786/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-201413-1 MS	93108-F-20240315-01	Total/NA	Water	7470A	
240-201413-1 MSD	93108-F-20240315-01	Total/NA	Water	7470A	

Analysis Batch: 606959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-4	94137-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-6	94136-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-8	94139-F-20240318-01	Total/NA	Water	7470A	606786
MB 240-606786/1-A	Method Blank	Total/NA	Water	7470A	606786
LCS 240-606786/2-A	Lab Control Sample	Total/NA	Water	7470A	606786
240-201413-1 MS	93108-F-20240315-01	Total/NA	Water	7470A	606786
240-201413-1 MSD	93108-F-20240315-01	Total/NA	Water	7470A	606786

Analysis Batch: 607070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-2	2022-12-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-3	2022-13-F-20240315-01	Total Recoverable	Water	6020B	606785

Metals (Continued)

Analysis Batch: 607070 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-4	94137-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-5	DUP-004-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-6	94136-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-7	EB-001-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-8	94139-F-20240318-01	Total Recoverable	Water	6020B	606785
MB 240-606785/1-A	Method Blank	Total Recoverable	Water	6020B	606785
LCS 240-606785/3-A	Lab Control Sample	Total Recoverable	Water	6020B	606785
240-201413-1 MS	93108-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-1 MSD	93108-F-20240315-01	Total Recoverable	Water	6020B	606785

Analysis Batch: 607207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-2	2022-12-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-3	2022-13-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-4	94137-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-5	DUP-004-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-6	94136-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-7	EB-001-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-8	94139-F-20240318-01	Total Recoverable	Water	6010D	606785
MB 240-606785/1-A	Method Blank	Total Recoverable	Water	6010D	606785
LCS 240-606785/2-A	Lab Control Sample	Total Recoverable	Water	6010D	606785
240-201413-1 MS	93108-F-20240315-01	Total Recoverable	Water	6010D	606785
240-201413-1 MSD	93108-F-20240315-01	Total Recoverable	Water	6010D	606785

Analysis Batch: 607394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-2	2022-12-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-3	2022-13-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-4	94137-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-5	DUP-004-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-6	94136-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-7	EB-001-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-8	94139-F-20240318-01	Total Recoverable	Water	6020B	606785
MB 240-606785/1-A	Method Blank	Total Recoverable	Water	6020B	606785
LCS 240-606785/3-A	Lab Control Sample	Total Recoverable	Water	6020B	606785
240-201413-1 MS	93108-F-20240315-01	Total Recoverable	Water	6020B	606785
240-201413-1 MSD	93108-F-20240315-01	Total Recoverable	Water	6020B	606785

General Chemistry

Analysis Batch: 607073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	2320B-1997	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	2320B-1997	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	2320B-1997	
240-201413-4	94137-F-20240315-01	Total/NA	Water	2320B-1997	
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	2320B-1997	
240-201413-6	94136-F-20240315-01	Total/NA	Water	2320B-1997	
MB 240-607073/109	Method Blank	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 607073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-607073/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-607073/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-607073/108	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-607073/82	Lab Control Sample	Total/NA	Water	2320B-1997	
240-201413-6 DU	94136-F-20240315-01	Total/NA	Water	2320B-1997	

Analysis Batch: 607134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	SM 2540C	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	SM 2540C	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	SM 2540C	
240-201413-4	94137-F-20240315-01	Total/NA	Water	SM 2540C	
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	SM 2540C	
240-201413-6	94136-F-20240315-01	Total/NA	Water	SM 2540C	
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	SM 2540C	
MB 240-607134/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-607134/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-201413-2 DU	2022-12-F-20240315-01	Total/NA	Water	SM 2540C	

Analysis Batch: 607338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-8	94139-F-20240318-01	Total/NA	Water	SM 2540C	
MB 240-607338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-607338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-201413-8 DU	94139-F-20240318-01	Total/NA	Water	SM 2540C	

Analysis Batch: 607894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	2320B-1997	
MB 240-607894/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-607894/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 608090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-8	94139-F-20240318-01	Total/NA	Water	2320B-1997	
MB 240-608090/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-608090/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 608434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	300.0	
240-201413-1	93108-F-20240315-01	Total/NA	Water	300.0	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	300.0	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	300.0	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	300.0	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	300.0	
240-201413-4	94137-F-20240315-01	Total/NA	Water	300.0	
240-201413-4	94137-F-20240315-01	Total/NA	Water	300.0	
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	300.0	
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	300.0	
240-201413-6	94136-F-20240315-01	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 608434 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-6	94136-F-20240315-01	Total/NA	Water	300.0	
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	300.0	
240-201413-8	94139-F-20240318-01	Total/NA	Water	300.0	
240-201413-8	94139-F-20240318-01	Total/NA	Water	300.0	
MB 240-608434/3	Method Blank	Total/NA	Water	300.0	
LCS 240-608434/4	Lab Control Sample	Total/NA	Water	300.0	
240-201413-7 MS	EB-001-F-20240315-01	Total/NA	Water	300.0	
240-201413-7 MSD	EB-001-F-20240315-01	Total/NA	Water	300.0	

Rad

Prep Batch: 653867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	PrecSep-21	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	PrecSep-21	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	PrecSep-21	
240-201413-4	94137-F-20240315-01	Total/NA	Water	PrecSep-21	
MB 160-653867/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-653867/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 653868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-1	93108-F-20240315-01	Total/NA	Water	PrecSep_0	
240-201413-2	2022-12-F-20240315-01	Total/NA	Water	PrecSep_0	
240-201413-3	2022-13-F-20240315-01	Total/NA	Water	PrecSep_0	
240-201413-4	94137-F-20240315-01	Total/NA	Water	PrecSep_0	
MB 160-653868/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-653868/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 653869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	PrecSep-21	
240-201413-6	94136-F-20240315-01	Total/NA	Water	PrecSep-21	
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	PrecSep-21	
240-201413-8	94139-F-20240318-01	Total/NA	Water	PrecSep-21	
MB 160-653869/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-653869/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 653870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201413-5	DUP-004-F-20240315-01	Total/NA	Water	PrecSep_0	
240-201413-6	94136-F-20240315-01	Total/NA	Water	PrecSep_0	
240-201413-7	EB-001-F-20240315-01	Total/NA	Water	PrecSep_0	
240-201413-8	94139-F-20240318-01	Total/NA	Water	PrecSep_0	
MB 160-653870/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-653870/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201413-1

Client Sample ID: 93108-F-20240315-01

Lab Sample ID: 240-201413-1

Date Collected: 03/15/24 10:44

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 02:39
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:08
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 11:54
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:21
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/22/24 01:27
Total/NA	Analysis	300.0		2	608434	JWW	EET CLE	04/04/24 23:24
Total/NA	Analysis	300.0		20	608434	JWW	EET CLE	04/05/24 00:29
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653867	KAK	EET SL	03/25/24 09:33
Total/NA	Analysis	9315		1	657623	SWS	EET SL	04/18/24 07:26
Total/NA	Prep	PrecSep_0			653868	KAK	EET SL	03/25/24 09:47
Total/NA	Analysis	9320		1	657403	EMH	EET SL	04/17/24 11:56
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:26

Client Sample ID: 2022-12-F-20240315-01

Lab Sample ID: 240-201413-2

Date Collected: 03/15/24 11:41

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:09
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:25
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 12:07
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:27
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/22/24 01:33
Total/NA	Analysis	300.0		1	608434	JWW	EET CLE	04/04/24 18:20
Total/NA	Analysis	300.0		5	608434	JWW	EET CLE	04/04/24 18:42
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653867	KAK	EET SL	03/25/24 09:33
Total/NA	Analysis	9315		1	657623	SWS	EET SL	04/18/24 07:26
Total/NA	Prep	PrecSep_0			653868	KAK	EET SL	03/25/24 09:47
Total/NA	Analysis	9320		1	657403	EMH	EET SL	04/17/24 11:56
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:26

Client Sample ID: 2022-13-F-20240315-01

Lab Sample ID: 240-201413-3

Date Collected: 03/15/24 12:32

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:14
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:27
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		2	607394	AJC	EET CLE	03/25/24 12:09
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:29
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/22/24 01:39
Total/NA	Analysis	300.0		2	608434	JWW	EET CLE	04/05/24 00:51
Total/NA	Analysis	300.0		20	608434	JWW	EET CLE	04/05/24 01:13
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653867	KAK	EET SL	03/25/24 09:33
Total/NA	Analysis	9315		1	657623	SWS	EET SL	04/18/24 07:26
Total/NA	Prep	PrecSep_0			653868	KAK	EET SL	03/25/24 09:47
Total/NA	Analysis	9320		1	657403	EMH	EET SL	04/17/24 11:56
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:26

Client Sample ID: 94137-F-20240315-01

Lab Sample ID: 240-201413-4

Date Collected: 03/15/24 13:41

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:18
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:30
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 12:17
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:31
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/22/24 01:44
Total/NA	Analysis	300.0		1	608434	JWW	EET CLE	04/04/24 17:37
Total/NA	Analysis	300.0		5	608434	JWW	EET CLE	04/04/24 17:58
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653867	KAK	EET SL	03/25/24 09:33
Total/NA	Analysis	9315		1	657623	SWS	EET SL	04/18/24 07:26
Total/NA	Prep	PrecSep_0			653868	KAK	EET SL	03/25/24 09:47
Total/NA	Analysis	9320		1	657403	EMH	EET SL	04/17/24 11:56
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:26

Client Sample ID: DUP-004-F-20240315-01

Lab Sample ID: 240-201413-5

Date Collected: 03/15/24 00:00

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:23
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:32
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 12:22
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:33
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/22/24 01:50
Total/NA	Analysis	300.0		1	608434	JWW	EET CLE	04/04/24 20:31
Total/NA	Analysis	300.0		5	608434	JWW	EET CLE	04/04/24 20:52
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653869	KAK	EET SL	03/25/24 09:49
Total/NA	Analysis	9315		1	657621	SWS	EET SL	04/18/24 09:25
Total/NA	Prep	PrecSep_0			653870	KAK	EET SL	03/25/24 09:54
Total/NA	Analysis	9320		1	657002	SWS	EET SL	04/15/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:30

Client Sample ID: 94136-F-20240315-01

Lab Sample ID: 240-201413-6

Date Collected: 03/15/24 14:27

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:27
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:35
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 12:24
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:35
Total/NA	Analysis	2320B-1997		1	607073	JMR	EET CLE	03/22/24 02:05
Total/NA	Analysis	300.0		2	608434	JWW	EET CLE	04/04/24 22:41
Total/NA	Analysis	300.0		10	608434	JWW	EET CLE	04/04/24 23:03
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653869	KAK	EET SL	03/25/24 09:49
Total/NA	Analysis	9315		1	657621	SWS	EET SL	04/18/24 09:25
Total/NA	Prep	PrecSep_0			653870	KAK	EET SL	03/25/24 09:54
Total/NA	Analysis	9320		1	657002	SWS	EET SL	04/15/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:30

Client Sample ID: EB-001-F-20240315-01

Lab Sample ID: 240-201413-7

Date Collected: 03/15/24 14:45

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:32
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:37
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 13:07
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:42
Total/NA	Analysis	2320B-1997		1	607894	QUY8	EET CLE	03/29/24 11:35
Total/NA	Analysis	300.0		1	608434	JWW	EET CLE	04/04/24 16:32
Total/NA	Analysis	SM 2540C		1	607134	C5SV	EET CLE	03/22/24 11:23
Total/NA	Prep	PrecSep-21			653869	KAK	EET SL	03/25/24 09:49
Total/NA	Analysis	9315		1	657621	SWS	EET SL	04/18/24 09:25
Total/NA	Prep	PrecSep_0			653870	KAK	EET SL	03/25/24 09:54
Total/NA	Analysis	9320		1	657002	SWS	EET SL	04/15/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:30

Client Sample ID: 94139-F-20240318-01

Lab Sample ID: 240-201413-8

Date Collected: 03/18/24 11:09

Matrix: Water

Date Received: 03/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6010D		1	607207	RKT	EET CLE	03/23/24 03:44
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607070	AJC	EET CLE	03/21/24 17:40
Total Recoverable	Prep	3005A			606785	BN	EET CLE	03/20/24 14:00
Total Recoverable	Analysis	6020B		1	607394	AJC	EET CLE	03/25/24 12:30
Total/NA	Prep	7470A			606786	BN	EET CLE	03/20/24 14:00
Total/NA	Analysis	7470A		1	606959	TQ6W	EET CLE	03/21/24 14:44
Total/NA	Analysis	2320B-1997		1	608090	QUY8	EET CLE	04/01/24 10:09
Total/NA	Analysis	300.0		1	608434	JWW	EET CLE	04/04/24 21:57
Total/NA	Analysis	300.0		10	608434	JWW	EET CLE	04/04/24 22:19
Total/NA	Analysis	SM 2540C		1	607338	C5SV	EET CLE	03/25/24 11:36
Total/NA	Prep	PrecSep-21			653869	KAK	EET SL	03/25/24 09:49
Total/NA	Analysis	9315		1	657621	SWS	EET SL	04/18/24 09:25
Total/NA	Prep	PrecSep_0			653870	KAK	EET SL	03/25/24 09:54
Total/NA	Analysis	9320		1	657005	SWS	EET SL	04/15/24 11:49
Total/NA	Analysis	Ra226_Ra228		1	657645	FLC	EET SL	04/18/24 15:30

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201413-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201413-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Custe	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
93108-F-20240315-01	3-15-24	1044	G	Water	N		1	1	2	1	1		
2022-12-F-20240315-01	3-15-24	1141	G	Water	N		1	1	2	1	1		
2022-13-F-20240315-01	3-15-24	1232	G	Water	N		1	1	2	1	1		
94137-F-20240315-01	3-15-24	1341	G	Water	N		1	1	2	1	1		
DUP-004-F-20240315-01	3-15-24	—	G	Water	N		1	1	2	1	1		
94136-F-20240315-01	3-15-24	1427	G	Water	N		1	1	2	1	1		
EB-001-F-20240315-01	3-15-24	1445	G	Water	N		1	1	2	1	1		
94139-F-20240318-01	3-18-24	1109	G	Water	N		1	1	2	1	1		
				Water									
BC				Water									
				Water									

240-201413 Chain of Custody

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Bobby Custe	3-19-24 0845	KEA	Ashley Deal	3-19-24 12:15	EA
2	Ashley Deal	3-19-24 1700	EA		3-20-24 800	EETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	3.4	3.4	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	2.2	2.2	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	3.8	3.8	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

Eurofins - Cleveland Sample Receipt Form/Narrative — Login #: 201413
Barberton Facility

Client LightStone — Site Name _____ — Cooler unpacked by: [signature]

Cooler Received on 3-20-24 — Opened on 3-20-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC — Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

Cooler temperature upon receipt — X See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13 17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

3/20/2024

Login Container Summary Report

240-201413

4/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
93108-F-20240315-01	240-201413-A-1	Plastic 60 mL - unpreserved				
93108-F-20240315-01	240-201413-B-1	Plastic 60 mL - unpreserved				
93108-F-20240315-01	240-201413-C-1	Plastic 500ml - unpreserved				
93108-F-20240315-01	240-201413-D-1	Plastic 500ml - with Nitric Acid				
93108-F-20240315-01	240-201413-E-1	Plastic 1 liter - Nitric Acid	<2			
93108-F-20240315-01	240-201413-F-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F 20240315-01	240-201413-A-2	Plastic 60 mL - unpreserved				
2022-12-F-20240315-01	240-201413-B-2	Plastic 60 mL - unpreserved				
2022-12-F-20240315-01	240-201413-C-2	Plastic 500ml - unpreserved				
2022-12-F-20240315-01	240-201413-D-2	Plastic 500ml - with Nitric Acid				
2022-12-F-20240315-01	240 201413-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-20240315-01	240-201413-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-13 F 20240315-01	240-201413-A-3	Plastic 60 mL - unpreserved				
2022-13-F-20240315-01	240-201413 B-3	Plastic 60 mL - unpreserved				
2022-13-F-20240315-01	240-201413-C-3	Plastic 500ml - unpreserved				
2022-13-F-20240315-01	240-201413-D-3	Plastic 500ml - with Nitric Acid				
2022-13-F-20240315-01	240-201413-E-3	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-20240315-01	240-201413-F-3	Plastic 1 liter - Nitric Acid	<2			
94137-F-20240315-01	240-201413 A-4	Plastic 60 mL - unpreserved				
94137-F 20240315-01	240-201413-B-4	Plastic 60 mL - unpreserved				
94137-F-20240315-01	240-201413-C-4	Plastic 500ml - unpreserved				
94137-F-20240315-01	240-201413-D-4	Plastic 500ml - with Nitric Acid				
94137-F-20240315-01	240-201413-E-4	Plastic 1 liter - Nitric Acid	<2			
94137 F-20240315-01	240 201413-F-4	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20240315-01	240 201413-A-5	Plastic 60 mL - unpreserved				
DUP-004-F-20240315-01	240-201413-B-5	Plastic 60 mL - unpreserved				
DUP-004-F-20240315-01	240-201413-C-5	Plastic 500ml - unpreserved				
DUP-004-F-20240315-01	240-201413 D-5	Plastic 500ml - with Nitric Acid				
DUP-004-F-20240315-01	240-201413-E-5	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20240315-01	240 201413-F-5	Plastic 1 liter - Nitric Acid	<2			
94136-F-20240315-01	240-201413-A-6	Plastic 60 mL unpreserved				
94136-F-20240315-01	240 201413-B-6	Plastic 60 mL - unpreserved				
94136-F-20240315-01	240-201413-C-6	Plastic 500ml - unpreserved				
94136-F-20240315-01	240 201413-D-6	Plastic 500ml with Nitric Acid				
94136-F-20240315-01	240 201413-E-6	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
94136-F-20240315-01	240-201413-F-6	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240315-01	240-201413-A-7	Plastic 60 mL - unpreserved				
EB-001-F-20240315-01	240-201413 B-7	Plastic 60 mL - unpreserved				
EB-001-F-20240315-01	240-201413-C-7	Plastic 500ml - unpreserved				
EB-001-F-20240315-01	240-201413 D-7	Plastic 500ml - with Nitric Acid				
EB-001-F-20240315-01	240-201413-E-7	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240315-01	240-201413-F-7	Plastic 1 liter - Nitric Acid	<2			
94139-F-20240318-01	240-201413-A-8	Plastic 60 mL - unpreserved				
94139-F-20240318-01	240-201413-B-8	Plastic 60 mL - unpreserved				
94139-F-20240318-01	240-201413-C-8	Plastic 500ml - unpreserved				
94139-F-20240318-01	240-201413-D-8	Plastic 500ml - with Nitric Acid				
94139-F-20240318-01	240-201413-E-8	Plastic 1 liter - Nitric Acid	<2			
94139-F-20240318-01	240-201413-F-8	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Caste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastestl, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
93108-F-20240315-01	3-15-24	1044	G	Water	N		1	1	2	1	1		
2022-12-F-20240315-01	3-15-24	1141	G	Water	N		1	1	2	1	1		
2022-13-F-20240315-01	3-15-24	1232	G	Water	N		1	1	2	1	1		
94137-F-20240315-01	3-15-24	1341	G	Water	N		1	1	2	1	1		
DUP-004-F-20240315-01	3-15-24	—	G	Water	N		1	1	2	1	1		
94136-F-20240315-01	3-15-24	1427	G	Water	N		1	1	2	1	1		
FB-001-F-20240315-01	3-15-24	1445	G	Water	N		1	1	2	1	1		
94139-F-20240318-01	3-18-24	1109	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									

240-201413 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Caste	3-19-24 0845	KEA Rail	Ashley Deal	3.19.24 12:15	EEA
Ashley Deal	3-19-24 1700	EEA		3-20-24 800	EETNC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

201413

Eurofins = Cleveland Sample Receipt Form/Narrative — Login #: —
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by:

Cooler Received on 3-20-24 Opened on 3-20-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12 Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13 17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	3.4	3.4	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	2.2	2.2	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	3.8	3.6	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

3/20/2024

Login Container Summary Report

240-201413

4/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
93108 F 20240315-01	240-201413-A-1	Plastic 60 mL - unpreserved				
93108-F-20240315-01	240-201413 B 1	Plastic 60 mL unpreserved				
93108-F 20240315-01	240-201413-C-1	Plastic 500ml - unpreserved				
93108-F-20240315-01	240-201413-D-1	Plastic 500ml - with Nitric Acid				
93108-F 20240315-01	240-201413 E-1	Plastic 1 liter - Nitric Acid	<2			
93108-F-20240315-01	240-201413-F-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-20240315-01	240-201413 A-2	Plastic 60 mL - unpreserved				
2022-12-F-20240315-01	240-201413-B-2	Plastic 60 mL - unpreserved				
2022-12-F-20240315-01	240-201413-C-2	Plastic 500ml - unpreserved				
2022-12-F-20240315-01	240 201413-D-2	Plastic 500ml - with Nitric Acid				
2022-12-F-20240315-01	240-201413 E-2	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-20240315-01	240-201413-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-20240315-01	240-201413 A-3	Plastic 60 mL - unpreserved				
2022-13 F 20240315-01	240-201413-B-3	Plastic 60 mL - unpreserved				
2022-13-F-20240315-01	240-201413-C-3	Plastic 500ml unpreserved				
2022-13-F-20240315-01	240-201413-D-3	Plastic 500ml - with Nitric Acid				
2022-13-F-20240315-01	240 201413-E-3	Plastic 1 liter - Nitric Acid	<2			
2022 13 F-20240315-01	240-201413-F-3	Plastic 1 liter - Nitric Acid	<2			
94137-F-20240315-01	240-201413 A-4	Plastic 60 mL - unpreserved				
94137 F-20240315-01	240-201413-B-4	Plastic 60 mL - unpreserved				
94137-F-20240315-01	240 201413-C-4	Plastic 500ml unpreserved				
94137-F-20240315-01	240 201413-D-4	Plastic 500ml - with Nitric Acid				
94137-F-20240315-01	240-201413-E-4	Plastic 1 liter - Nitric Acid	<2			
94137-F-20240315-01	240-201413-F-4	Plastic 1 liter - Nitric Acid	<2			
DUP-004 F-20240315-01	240-201413 A-5	Plastic 60 mL - unpreserved				
DUP-004-F-20240315-01	240 201413-B-5	Plastic 60 mL - unpreserved				
DUP-004 F-20240315-01	240-201413-C-5	Plastic 500ml - unpreserved				
DUP-004-F-20240315-01	240-201413-D-5	Plastic 500ml - with Nitric Acid				
DUP-004-F 20240315-01	240-201413-E-5	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20240315-01	240-201413-F-5	Plastic 1 liter - Nitric Acid	<2			
94136 F-20240315-01	240-201413-A-6	Plastic 60 mL - unpreserved				
94136-F-20240315-01	240-201413-B-6	Plastic 60 mL - unpreserved				
94136 F 20240315-01	240-201413-C-6	Plastic 500ml - unpreserved				
94136-F-20240315-01	240 201413-D-6	Plastic 500ml - with Nitric Acid				
94136-F 20240315-01	240-201413 E-6	Plastic 1 liter - Nitric Acid	<2			

4/19/2024

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
94136 F 20240315-01	240-201413 F-6	Plastic 1 liter - Nitric Acid	<2			
EB-001-F 20240315-01	240-201413-A-7	Plastic 60 mL - unpreserved				
EB-001-F-20240315-01	240-201413 B-7	Plastic 60 mL - unpreserved				
EB-001-F-20240315-01	240 201413-C-7	Plastic 500ml - unpreserved				
EB-001-F-20240315-01	240-201413 D-7	Plastic 500ml - with Nitric Acid				
EB-001-F-20240315-01	240-201413-E-7	Plastic 1 liter - Nitric Acid	<2			
EB-001-F 20240315-01	240-201413-F-7	Plastic 1 liter - Nitric Acid	<2			
94139-F-20240318-01	240-201413-A-8	Plastic 60 mL - unpreserved				
94139-F-20240318-01	240-201413-B-8	Plastic 60 mL - unpreserved				
94139-F-20240318-01	240-201413-C-8	Plastic 500ml - unpreserved				
94139-F-20240318-01	240-201413-D-8	Plastic 500ml - with Nitric Acid				
94139-F-20240318-01	240-201413 E-8	Plastic 1 liter - Nitric Acid	<2			
94139-F-20240318-01	240 201413-F-8	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-182075.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-201413-1
Address: 13715 Rider Trail North,	Due Date Requested: 4/22/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
93108-F-20240315-01 (240-201413-1)	3/15/24	10:44 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-12-F-20240315-01 (240-201413-2)	3/15/24	11:41 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-13-F-20240315-01 (240-201413-3)	3/15/24	12:32 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
94137-F-20240315-01 (240-201413-4)	3/15/24	13:41 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
DUP-004-F-20240315-01 (240-201413-5)	3/15/24	Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
94136-F-20240315-01 (240-201413-6)	3/15/24	14:27 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
EB-001-F-20240315-01 (240-201413-7)	3/15/24	14:45 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet
94139-F-20240318-01 (240-201413-8)	3/18/24	11:09 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 3/20/24 1120	Company: EEINC	Received by: Richard Thornley	Date/Time: MAR 21 2024 0830	Company: ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

4/19/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-201413-1

Login Number: 201413

List Number: 1

Creator: Loar, Malissa

List Source: Eurofins Cleveland

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-201413-1

Login Number: 201413
List Number: 2
Creator: Thornley, Richard W

List Source: Eurofins St. Louis
List Creation: 03/21/24 02:17 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 4/26/2024 10:28:49 AM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-201697-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-201697-1 — Eurofins Cleveland

Job Narrative
240-201697-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 3/25/2024 3:30 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.5°C, 2.2°C, 3.2°C and 3.3°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201697-1
Project/Site: Federal CCR Wells

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-201697-1	93100-F-20240325-01	Water	03/25/24 11:16	03/25/24 15:30

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Client Sample ID: 93100-F-20240325-01

Lab Sample ID: 240-201697-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	470		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.2	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	370		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	11000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	25		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.73	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	33		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	3500		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	150		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1100000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.57	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	390		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	390		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1600		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	2.7		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	17		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	2700		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 93100-F-20240325-01
Date Collected: 03/25/24 11:16
Date Received: 03/25/24 15:30

Lab Sample ID: 240-201697-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	470		100	57	ug/L		03/26/24 14:00	03/28/24 02:30	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.2	J	2.0	0.57	ug/L		03/26/24 14:00	03/27/24 12:02	1
Arsenic	2.5	J	5.0	0.75	ug/L		03/26/24 14:00	03/27/24 12:02	1
Barium	370		5.0	2.2	ug/L		03/26/24 14:00	03/27/24 12:02	1
Beryllium	ND		1.0	0.62	ug/L		03/26/24 14:00	03/27/24 12:02	1
Cadmium	ND		1.0	0.20	ug/L		03/26/24 14:00	03/27/24 12:02	1
Calcium	11000		1000	250	ug/L		03/26/24 14:00	03/27/24 12:02	1
Chromium	25		5.0	1.2	ug/L		03/26/24 14:00	03/27/24 12:02	1
Cobalt	2.7		1.0	0.19	ug/L		03/26/24 14:00	03/27/24 12:02	1
Lead	0.73	J	1.0	0.45	ug/L		03/26/24 14:00	03/27/24 12:02	1
Lithium	33		8.0	1.7	ug/L		03/26/24 14:00	03/27/24 12:02	1
Magnesium	3500		1000	61	ug/L		03/26/24 14:00	03/27/24 12:02	1
Molybdenum	150		5.0	1.1	ug/L		03/26/24 14:00	03/27/24 12:02	1
Potassium	2200		1000	220	ug/L		03/26/24 14:00	03/27/24 12:02	1
Selenium	ND		5.0	0.89	ug/L		03/26/24 14:00	03/27/24 12:02	1
Sodium	1100000		1000	330	ug/L		03/26/24 14:00	03/27/24 12:02	1
Thallium	0.57	J	1.0	0.20	ug/L		03/26/24 14:00	03/27/24 12:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/26/24 14:00	03/27/24 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	390		5.0	2.6	mg/L			04/02/24 10:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	390		5.0	2.6	mg/L			04/02/24 10:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/02/24 10:20	1
Chloride (EPA 300.0)	1600		25	3.2	mg/L			04/12/24 08:20	25
Fluoride (EPA 300.0)	2.7		0.25	0.12	mg/L			04/12/24 07:58	5
Sulfate (EPA 300.0)	17		5.0	1.7	mg/L			04/12/24 07:58	5
Total Dissolved Solids (SM 2540C)	2700		50	39	mg/L			03/29/24 04:59	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.236	0.236	1.00	0.420	pCi/L	03/28/24 09:14	04/23/24 07:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*03/28/24 09:14*	*04/23/24 07:27*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.227	U	0.403	0.404	1.00	0.694	pCi/L	03/28/24 09:22	04/22/24 12:03	1

Client Sample ID: 93100-F-20240325-01
Date Collected: 03/25/24 11:16
Date Received: 03/25/24 15:30

Lab Sample ID: 240-201697-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*03/28/24 09:22*	*04/22/24 12:03*	*1*
Y Carrier	*79.3*		*30 - 110*	*03/28/24 09:22*	*04/22/24 12:03*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.336	U	0.467	0.468	5.00	0.694	pCi/L		04/26/24 09:16	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
240-201697-1	93100-F-20240325-01	97.5							
LCS 160-654479/2-A	Lab Control Sample	98.5							
MB 160-654479/1-A	Method Blank	99.3							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
240-201697-1	93100-F-20240325-01	97.5	79.3						
LCS 160-654480/2-A	Lab Control Sample	100	83.7						
MB 160-654480/1-A	Method Blank	99.3	84.1						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-607469/1-A
Matrix: Water
Analysis Batch: 607681

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 607469

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		03/26/24 14:00	03/28/24 01:52	1

Lab Sample ID: LCS 240-607469/2-A
Matrix: Water
Analysis Batch: 607681

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 607469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1060		ug/L		106	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-607469/1-A
Matrix: Water
Analysis Batch: 607657

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 607469

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		03/26/24 14:00	03/27/24 11:42	1
Arsenic	ND		5.0	0.75	ug/L		03/26/24 14:00	03/27/24 11:42	1
Barium	ND		5.0	2.2	ug/L		03/26/24 14:00	03/27/24 11:42	1
Beryllium	ND		1.0	0.62	ug/L		03/26/24 14:00	03/27/24 11:42	1
Cadmium	ND		1.0	0.20	ug/L		03/26/24 14:00	03/27/24 11:42	1
Calcium	ND		1000	250	ug/L		03/26/24 14:00	03/27/24 11:42	1
Chromium	ND		5.0	1.2	ug/L		03/26/24 14:00	03/27/24 11:42	1
Cobalt	ND		1.0	0.19	ug/L		03/26/24 14:00	03/27/24 11:42	1
Lead	ND		1.0	0.45	ug/L		03/26/24 14:00	03/27/24 11:42	1
Lithium	ND		8.0	1.7	ug/L		03/26/24 14:00	03/27/24 11:42	1
Magnesium	ND		1000	61	ug/L		03/26/24 14:00	03/27/24 11:42	1
Molybdenum	ND		5.0	1.1	ug/L		03/26/24 14:00	03/27/24 11:42	1
Potassium	ND		1000	220	ug/L		03/26/24 14:00	03/27/24 11:42	1
Selenium	ND		5.0	0.89	ug/L		03/26/24 14:00	03/27/24 11:42	1
Sodium	ND		1000	330	ug/L		03/26/24 14:00	03/27/24 11:42	1
Thallium	ND		1.0	0.20	ug/L		03/26/24 14:00	03/27/24 11:42	1

Lab Sample ID: LCS 240-607469/3-A
Matrix: Water
Analysis Batch: 607657

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 607469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	96.4		ug/L		96	80 - 120
Arsenic	1000	993		ug/L		99	80 - 120
Barium	1000	958		ug/L		96	80 - 120
Beryllium	500	492		ug/L		98	80 - 120
Cadmium	500	487		ug/L		97	80 - 120
Calcium	25000	24300		ug/L		97	80 - 120
Chromium	500	485		ug/L		97	80 - 120
Cobalt	500	502		ug/L		100	80 - 120
Lead	500	476		ug/L		95	80 - 120
Lithium	500	490		ug/L		98	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-607469/3-A
Matrix: Water
Analysis Batch: 607657

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 607469

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	478		ug/L		96	80 - 120
Potassium	25000	24800		ug/L		99	80 - 120
Selenium	1000	978		ug/L		98	80 - 120
Sodium	25000	24600		ug/L		98	80 - 120
Thallium	1000	945		ug/L		94	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-607470/1-A
Matrix: Water
Analysis Batch: 607624

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		03/26/24 14:00	03/27/24 10:44	1

Lab Sample ID: LCS 240-607470/2-A
Matrix: Water
Analysis Batch: 607624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.04		ug/L		101	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-608207/4
Matrix: Water
Analysis Batch: 608207

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/02/24 09:38	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/02/24 09:38	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/02/24 09:38	1

Lab Sample ID: LCS 240-608207/3
Matrix: Water
Analysis Batch: 608207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.6		mg/L		105	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-609344/3
Matrix: Water
Analysis Batch: 609344

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/11/24 22:55	1
Fluoride	ND		0.050	0.024	mg/L			04/11/24 22:55	1
Sulfate	ND		1.0	0.35	mg/L			04/11/24 22:55	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-609344/4
Matrix: Water
Analysis Batch: 609344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.8		mg/L		98	90 - 110
Fluoride	2.50	2.54		mg/L		101	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-607804/1
Matrix: Water
Analysis Batch: 607804

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			03/29/24 04:59	1

Lab Sample ID: LCS 240-607804/2
Matrix: Water
Analysis Batch: 607804

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	505	475		mg/L		94	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-654479/1-A
Matrix: Water
Analysis Batch: 658242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 654479

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.1412	U	0.0846	0.0856	1.00	0.263	pCi/L	03/28/24 09:14	04/23/24 07:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.3*		*30 - 110*	*03/28/24 09:14*	*04/23/24 07:38*	*1*

Lab Sample ID: LCS 160-654479/2-A
Matrix: Water
Analysis Batch: 658164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 654479

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	9.882		1.21	1.00	0.196	pCi/L	87	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*98.5*		*30 - 110*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-654480/1-A
Matrix: Water
Analysis Batch: 657955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 654480

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08459	U	0.255	0.255	1.00	0.458	pCi/L	03/28/24 09:22	04/22/24 12:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.3*		*30 - 110*	*03/28/24 09:22*	*04/22/24 12:02*	*1*
Y Carrier	*84.1*		*30 - 110*	*03/28/24 09:22*	*04/22/24 12:02*	*1*

Lab Sample ID: LCS 160-654480/2-A
Matrix: Water
Analysis Batch: 657955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 654480

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.01	7.704		1.10	1.00	0.502	pCi/L	86	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*30 - 110*
Y Carrier	*83.7*		*30 - 110*

Metals

Prep Batch: 607469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total Recoverable	Water	3005A	
MB 240-607469/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-607469/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-607469/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 607470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	7470A	
MB 240-607470/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-607470/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 607624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	7470A	607470
MB 240-607470/1-A	Method Blank	Total/NA	Water	7470A	607470
LCS 240-607470/2-A	Lab Control Sample	Total/NA	Water	7470A	607470

Analysis Batch: 607657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total Recoverable	Water	6020B	607469
MB 240-607469/1-A	Method Blank	Total Recoverable	Water	6020B	607469
LCS 240-607469/3-A	Lab Control Sample	Total Recoverable	Water	6020B	607469

Analysis Batch: 607681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total Recoverable	Water	6010D	607469
MB 240-607469/1-A	Method Blank	Total Recoverable	Water	6010D	607469
LCS 240-607469/2-A	Lab Control Sample	Total Recoverable	Water	6010D	607469

General Chemistry

Analysis Batch: 607804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	SM 2540C	
MB 240-607804/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-607804/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 608207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	2320B-1997	
MB 240-608207/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-608207/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 609344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	300.0	
240-201697-1	93100-F-20240325-01	Total/NA	Water	300.0	
MB 240-609344/3	Method Blank	Total/NA	Water	300.0	
LCS 240-609344/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201697-1
Project/Site: Federal CCR Wells

Rad

Prep Batch: 654479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	PrecSep-21	
MB 160-654479/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-654479/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 654480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-201697-1	93100-F-20240325-01	Total/NA	Water	PrecSep_0	
MB 160-654480/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-654480/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-201697-1

Client Sample ID: 93100-F-20240325-01
Date Collected: 03/25/24 11:16
Date Received: 03/25/24 15:30

Lab Sample ID: 240-201697-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			607469	BN	EET CLE	03/26/24 14:00
Total Recoverable	Analysis	6010D		1	607681	RKT	EET CLE	03/28/24 02:30
Total Recoverable	Prep	3005A			607469	BN	EET CLE	03/26/24 14:00
Total Recoverable	Analysis	6020B		1	607657	AJC	EET CLE	03/27/24 12:02
Total/NA	Prep	7470A			607470	BN	EET CLE	03/26/24 14:00
Total/NA	Analysis	7470A		1	607624	TQ6W	EET CLE	03/27/24 10:57
Total/NA	Analysis	2320B-1997		1	608207	QUY8	EET CLE	04/02/24 10:20
Total/NA	Analysis	300.0		5	609344	JWW	EET CLE	04/12/24 07:58
Total/NA	Analysis	300.0		25	609344	JWW	EET CLE	04/12/24 08:20
Total/NA	Analysis	SM 2540C		1	607804	MS	EET CLE	03/29/24 04:59
Total/NA	Prep	PrecSep-21			654479	KAK	EET SL	03/28/24 09:14
Total/NA	Analysis	9315		1	658164	SWS	EET SL	04/23/24 07:27
Total/NA	Prep	PrecSep_0			654480	KAK	EET SL	03/28/24 09:22
Total/NA	Analysis	9320		1	657955	SCB	EET SL	04/22/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	658819	FLC	EET SL	04/26/24 09:16

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201697-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-201697-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: H. Luckey Doo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4368	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra228, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
93100-F-20240325-01	3-25-24	1116	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-201697 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3-25-24	KEMRON	Tom Edwards	3-25-24 11:30 hrs	Auto Optrans
Tom Edwards	3-25-24 15:25 hrs	Auto Optrans			
			M. Koch	3-25-24 15:30	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Cleveland Sample Receipt Form/Narrative — Login #: 201697
Barberton Facility

Client Lightstone — Site Name ____ — Cooler unpacked by: [signature]

Cooler Received on 3-25-24 — Opened on 3-26-24

FedEx: 1st Grd Exp UPS FAS Waypoint (Client Drop Off) Eurofins Courier Other ____

Receipt After-hours Drop-off Date/Time ____ Storage Location ____

Eurofins Cooler # 5 (Foam Box) Client Cooler Box Other ____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other ____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF 0.0 °C) Observed Cooler Temp ____ °C Corrected Cooler Temp ____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y/N)	(Y/N) (Y/N)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC316719
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? ____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container
Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory
Time preserved. ____ Preservative(s) added/Lot number(s) ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____

Login # . 201697

4/26/2024

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	3.3	3.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	3.2	3.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	1.5	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 22	2.2	2.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

3/26/2024

Login Container Summary Report

240-201697

4/26/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
93100-F-20240325-01	240-201697-A-1	Plastic 60 mL - unpreserved				
93100-F-20240325-01	240-201697-B-1	Plastic 60 mL - unpreserved				
93100-F-20240325-01	240-201697-C-1	Plastic 500ml - unpreserved				
93100-F-20240325-01	240-201697-D-1	Plastic 500ml - with Nitric Acid	<2			
93100 F-20240325-01	240-201697-E-1	Plastic 1 liter - Nitric Acid	<2			
93100-F-20240325-01	240-201697-F-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-182290.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-201697-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 4/8/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
93100-F-20240325-01 (240-201697-1)	3/25/24	11:16 Eastern		Water			X	X	X	2	, Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: MAR 27 2024 0920	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-201697-1

Login Number: 201697
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 03/27/24 03:00 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 4/22/2024 8:37:54 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-202722-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-202722-1 Eurofins Cleveland

Job Narrative
240-202722-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/12/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.2°C and 4.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A3-20240410-01 (240-202722-1) and DUP-001-F-A3-20240410-01 (240-202722-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202722-1	9631-F-A3-20240410-01	Water	04/10/24 14:02	04/12/24 08:00
240-202722-2	DUP-001-F-A3-20240410-01	Water	04/10/24 00:00	04/12/24 08:00
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Water	04/10/24 14:45	04/12/24 08:00
240-202722-4	EB-001-F-A3-20240410-01	Water	04/10/24 17:00	04/12/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-202722-1

Client Sample ID: 9631-F-A3-20240410-01 — Lab Sample ID: 240-202722-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1300000		10000	2500	ug/L	10		6020B	Total Recoverable
Magnesium	450000	F2	100000	6100	ug/L	100		6020B	Total Recoverable
Potassium	22000		10000	2200	ug/L	10		6020B	Total Recoverable
Sodium	13000000	F2	100000	33000	ug/L	100		6020B	Total Recoverable
Total Alkalinity	96		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	96		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	27000		500	64	mg/L	500		300.0	Total/NA
Total Dissolved Solids	35000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-A3-20240410-01 — Lab Sample ID: 240-202722-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1400000		2000	510	ug/L	2		6020B	Total Recoverable
Magnesium	490000		20000	1200	ug/L	20		6020B	Total Recoverable
Potassium	22000		2000	430	ug/L	2		6020B	Total Recoverable
Sodium	13000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	95		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	95		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	26000		500	64	mg/L	500		300.0	Total/NA
Sulfate	19	J	50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	34000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELDBLANK-001-F-A3-20240410-01 — Lab Sample ID: 240-202722-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity	2.6	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	2.6	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: EB-001-F-A3-20240410-01 — Lab Sample ID: 240-202722-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-202722-1

Client Sample ID: 9631-F-A3-20240410-01
Date Collected: 04/10/24 14:02
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202722-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		04/12/24 15:00	04/15/24 09:13	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1300000		10000	2500	ug/L		04/12/24 15:00	04/15/24 20:33	10
Magnesium	450000	F2	100000	6100	ug/L		04/12/24 15:00	04/16/24 18:52	100
Potassium	22000		10000	2200	ug/L		04/12/24 15:00	04/15/24 20:33	10
Sodium	13000000	F2	100000	33000	ug/L		04/12/24 15:00	04/16/24 18:52	100

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	96		5.0	2.6	mg/L			04/12/24 11:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	96		5.0	2.6	mg/L			04/12/24 11:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 11:44	1
Chloride (EPA 300.0)	27000		500	64	mg/L			04/21/24 05:37	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/21/24 04:31	50
Sulfate (EPA 300.0)	ND		50	17	mg/L			04/21/24 04:31	50
Total Dissolved Solids (SM 2540C)	35000		1000	780	mg/L			04/17/24 11:04	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-202722-1

Client Sample ID: DUP-001-F-A3-20240410-01

Date Collected: 04/10/24 00:00
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202722-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		04/12/24 15:00	04/15/24 10:01	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400000		2000	510	ug/L		04/12/24 15:00	04/15/24 21:05	2
Magnesium	490000		20000	1200	ug/L		04/12/24 15:00	04/16/24 19:15	20
Potassium	22000		2000	430	ug/L		04/12/24 15:00	04/15/24 21:05	2
Sodium	13000000		20000	6600	ug/L		04/12/24 15:00	04/16/24 19:15	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	95		5.0	2.6	mg/L			04/12/24 11:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	95		5.0	2.6	mg/L			04/12/24 11:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 11:53	1
Chloride (EPA 300.0)	26000		500	64	mg/L			04/21/24 07:03	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/21/24 06:42	50
Sulfate (EPA 300.0)	19	J	50	17	mg/L			04/21/24 06:42	50
Total Dissolved Solids (SM 2540C)	34000		1000	780	mg/L			04/17/24 11:04	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: FIELDBLANK-001-F-A3-20240410-01
Lab Sample ID: 240-202722-3

Date Collected: 04/10/24 14:45
Matrix: Water
Date Received: 04/12/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/12/24 15:00	04/15/24 10:06	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		04/12/24 15:00	04/15/24 21:10	1
Magnesium	ND		1000	61	ug/L		04/12/24 15:00	04/16/24 19:19	1
Potassium	ND		1000	220	ug/L		04/12/24 15:00	04/15/24 21:10	1
Sodium	ND		1000	330	ug/L		04/12/24 15:00	04/16/24 19:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**2.6**	**J**	5.0	2.6	mg/L			04/12/24 11:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**2.6**	**J**	5.0	2.6	mg/L			04/12/24 11:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 11:58	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/20/24 18:23	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/20/24 18:23	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/20/24 18:23	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/17/24 11:04	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-202722-1

Client Sample ID: EB-001-F-A3-20240410-01

Lab Sample ID: 240-202722-4

Date Collected: 04/10/24 17:00

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130		100	57	ug/L		04/12/24 15:00	04/15/24 10:10	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		04/12/24 15:00	04/15/24 21:14	1
Magnesium	ND		1000	61	ug/L		04/12/24 15:00	04/16/24 19:24	1
Potassium	ND		1000	220	ug/L		04/12/24 15:00	04/15/24 21:14	1
Sodium	ND		1000	330	ug/L		04/12/24 15:00	04/16/24 19:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 12:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 12:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 12:01	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			04/20/24 18:02	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			04/20/24 18:02	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			04/20/24 18:02	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			04/17/24 11:04	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-202722-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-609436/1-A
Matrix: Water
Analysis Batch: 609628

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/12/24 15:00	04/15/24 09:04	1

Lab Sample ID: LCS 240-609436/3-A
Matrix: Water
Analysis Batch: 609628

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Lab Sample ID: 240-202722-1 MS
Matrix: Water
Analysis Batch: 609628

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	350		1000	1360		ug/L		101	75 - 125

Lab Sample ID: 240-202722-1 MSD
Matrix: Water
Analysis Batch: 609628

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	350		1000	1420		ug/L		107	75 - 125	4	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-609436/1-A
Matrix: Water
Analysis Batch: 609698

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		04/12/24 15:00	04/15/24 19:38	1
Magnesium	ND		1000	61	ug/L		04/12/24 15:00	04/15/24 19:38	1
Potassium	ND		1000	220	ug/L		04/12/24 15:00	04/15/24 19:38	1
Sodium	ND		1000	330	ug/L		04/12/24 15:00	04/15/24 19:38	1

Lab Sample ID: LCS 240-609436/2-A
Matrix: Water
Analysis Batch: 609698

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	22900		ug/L		91	80 - 120
Magnesium	25000	23800		ug/L		95	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120
Sodium	25000	23800		ug/L		95	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-202722-1 MS
Matrix: Water
Analysis Batch: 609698

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	1300000		25000	1200000	4	ug/L		-432	80 - 120
Potassium	22000		25000	42700		ug/L		82	80 - 120

Lab Sample ID: 240-202722-1 MS
Matrix: Water
Analysis Batch: 609849

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Magnesium	450000	F2	25000	452000	4	ug/L		-2	80 - 120
Sodium	13000000	F2	25000	12400000	4	ug/L		-1232	80 - 120

Lab Sample ID: 240-202722-1 MSD
Matrix: Water
Analysis Batch: 609698

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	1300000		25000	1300000	4	ug/L		-26	80 - 120	8	20
Potassium	22000		25000	45700		ug/L		94	80 - 120	7	20

Lab Sample ID: 240-202722-1 MSD
Matrix: Water
Analysis Batch: 609849

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	450000	F2	25000	663000	4 F2	ug/L		844	80 - 120	38	20
Sodium	13000000	F2	25000	17900000	4 F2	ug/L		20478	80 - 120	36	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-609478/4
Matrix: Water
Analysis Batch: 609478

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/12/24 11:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/12/24 11:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/12/24 11:40	1

Lab Sample ID: LCS 240-609478/3
Matrix: Water
Analysis Batch: 609478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	80.3		mg/L		100	86 - 123

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-202722-1 DU
Matrix: Water
Analysis Batch: 609478

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	96			96.8		mg/L				0.5	20
Bicarbonate Alkalinity as CaCO3	96			96.8		mg/L				0.5	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Lab Sample ID: MB 240-609966/3
Matrix: Water
Analysis Batch: 609966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/17/24 10:23	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/24 10:23	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/24 10:23	1

Lab Sample ID: LCS 240-609966/2
Matrix: Water
Analysis Batch: 609966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			80.6	81.6		mg/L		101	86 - 123		

Lab Sample ID: 240-202722-1 DU
Matrix: Water
Analysis Batch: 609966

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	100			105		mg/L				1	20
Bicarbonate Alkalinity as CaCO3	100			105		mg/L				1	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-610281/3
Matrix: Water
Analysis Batch: 610281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/20/24 15:08	1
Fluoride	ND		0.050	0.024	mg/L			04/20/24 15:08	1
Sulfate	ND		1.0	0.35	mg/L			04/20/24 15:08	1

Lab Sample ID: LCS 240-610281/4
Matrix: Water
Analysis Batch: 610281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	49.9		mg/L		100	90 - 110		
Fluoride			2.50	2.56		mg/L		102	90 - 110		
Sulfate			50.0	50.9		mg/L		102	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-610291/3
Matrix: Water
Analysis Batch: 610291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/21/24 03:48	1
Fluoride	ND		0.050	0.024	mg/L			04/21/24 03:48	1
Sulfate	ND		1.0	0.35	mg/L			04/21/24 03:48	1

Lab Sample ID: LCS 240-610291/4
Matrix: Water
Analysis Batch: 610291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	49.9		mg/L		100	90 - 110		
Fluoride			2.50	2.58		mg/L		103	90 - 110		
Sulfate			50.0	51.0		mg/L		102	90 - 110		

Lab Sample ID: 240-202722-1 MS
Matrix: Water
Analysis Batch: 610291

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	ND		125	132		mg/L		105	80 - 120		
Sulfate	ND		2500	2670		mg/L		107	80 - 120		

Lab Sample ID: 240-202722-1 MS
Matrix: Water
Analysis Batch: 610291

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	27000		25000	51000		mg/L		96	80 - 120		

Lab Sample ID: 240-202722-1 MSD
Matrix: Water
Analysis Batch: 610291

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		125	127		mg/L		102	80 - 120	3	15
Sulfate	ND		2500	2620		mg/L		105	80 - 120	2	15

Lab Sample ID: 240-202722-1 MSD
Matrix: Water
Analysis Batch: 610291

Client Sample ID: 9631-F-A3-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	27000		25000	51100		mg/L		97	80 - 120	0	15

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-609905/1
Matrix: Water
Analysis Batch: 609905

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			04/17/24 11:04	1

Lab Sample ID: LCS 240-609905/2
Matrix: Water
Analysis Batch: 609905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			505	489		mg/L		97	80 - 120		

Metals

Prep Batch: 609436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total Recoverable	Water	3005A	
240-202722-2	DUP-001-F-A3-20240410-01	Total Recoverable	Water	3005A	
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total Recoverable	Water	3005A	
240-202722-4	EB-001-F-A3-20240410-01	Total Recoverable	Water	3005A	
MB 240-609436/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-609436/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-609436/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-202722-1 MS	9631-F-A3-20240410-01	Total Recoverable	Water	3005A	
240-202722-1 MS	9631-F-A3-20240410-01	Total Recoverable	Water	3005A	
240-202722-1 MSD	9631-F-A3-20240410-01	Total Recoverable	Water	3005A	
240-202722-1 MSD	9631-F-A3-20240410-01	Total Recoverable	Water	3005A	

Analysis Batch: 609628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total Recoverable	Water	6010D	609436
240-202722-2	DUP-001-F-A3-20240410-01	Total Recoverable	Water	6010D	609436
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total Recoverable	Water	6010D	609436
240-202722-4	EB-001-F-A3-20240410-01	Total Recoverable	Water	6010D	609436
MB 240-609436/1-A	Method Blank	Total Recoverable	Water	6010D	609436
LCS 240-609436/3-A	Lab Control Sample	Total Recoverable	Water	6010D	609436
240-202722-1 MS	9631-F-A3-20240410-01	Total Recoverable	Water	6010D	609436
240-202722-1 MSD	9631-F-A3-20240410-01	Total Recoverable	Water	6010D	609436

Analysis Batch: 609698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-2	DUP-001-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-4	EB-001-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
MB 240-609436/1-A	Method Blank	Total Recoverable	Water	6020B	609436
LCS 240-609436/2-A	Lab Control Sample	Total Recoverable	Water	6020B	609436
240-202722-1 MS	9631-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-1 MSD	9631-F-A3-20240410-01	Total Recoverable	Water	6020B	609436

Analysis Batch: 609849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-2	DUP-001-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-4	EB-001-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-1 MS	9631-F-A3-20240410-01	Total Recoverable	Water	6020B	609436
240-202722-1 MSD	9631-F-A3-20240410-01	Total Recoverable	Water	6020B	609436

General Chemistry

Analysis Batch: 609478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total/NA	Water	2320B-1997	
240-202722-2	DUP-001-F-A3-20240410-01	Total/NA	Water	2320B-1997	
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total/NA	Water	2320B-1997	
240-202722-4	EB-001-F-A3-20240410-01	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 609478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-609478/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-609478/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-202722-1 DU	9631-F-A3-20240410-01	Total/NA	Water	2320B-1997	

Analysis Batch: 609905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total/NA	Water	SM 2540C	
240-202722-2	DUP-001-F-A3-20240410-01	Total/NA	Water	SM 2540C	
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total/NA	Water	SM 2540C	
240-202722-4	EB-001-F-A3-20240410-01	Total/NA	Water	SM 2540C	
MB 240-609905/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-609905/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 609966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-609966/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-609966/2	Lab Control Sample	Total/NA	Water	2320B-1997	
240-202722-1 DU	9631-F-A3-20240410-01	Total/NA	Water	2320B-1997	

Analysis Batch: 610281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-3	FIELDBLANK-001-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-4	EB-001-F-A3-20240410-01	Total/NA	Water	300.0	
MB 240-610281/3	Method Blank	Total/NA	Water	300.0	
LCS 240-610281/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 610291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202722-1	9631-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-1	9631-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-2	DUP-001-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-2	DUP-001-F-A3-20240410-01	Total/NA	Water	300.0	
MB 240-610291/3	Method Blank	Total/NA	Water	300.0	
LCS 240-610291/4	Lab Control Sample	Total/NA	Water	300.0	
240-202722-1 MS	9631-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-1 MS	9631-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-1 MSD	9631-F-A3-20240410-01	Total/NA	Water	300.0	
240-202722-1 MSD	9631-F-A3-20240410-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 9631-F-A3-20240410-01
Lab Sample ID: 240-202722-1

Date Collected: 04/10/24 14:02
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6010D		1	609628	KLC	EET CLE	04/15/24 09:13
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		10	609698	AJC	EET CLE	04/15/24 20:33
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		100	609849	AJC	EET CLE	04/16/24 18:52
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 11:44
Total/NA	Analysis	300.0		50	610291	JWW	EET CLE	04/21/24 04:31
Total/NA	Analysis	300.0		500	610291	JWW	EET CLE	04/21/24 05:37
Total/NA	Analysis	SM 2540C		1	609905	UWU2	EET CLE	04/17/24 11:04

Client Sample ID: DUP-001-F-A3-20240410-01
Lab Sample ID: 240-202722-2

Date Collected: 04/10/24 00:00
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6010D		1	609628	KLC	EET CLE	04/15/24 10:01
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		2	609698	AJC	EET CLE	04/15/24 21:05
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		20	609849	AJC	EET CLE	04/16/24 19:15
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 11:53
Total/NA	Analysis	300.0		50	610291	JWW	EET CLE	04/21/24 06:42
Total/NA	Analysis	300.0		500	610291	JWW	EET CLE	04/21/24 07:03
Total/NA	Analysis	SM 2540C		1	609905	UWU2	EET CLE	04/17/24 11:04

Client Sample ID: FIELDBLANK-001-F-A3-20240410-01
Lab Sample ID: 240-202722-3

Date Collected: 04/10/24 14:45
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6010D		1	609628	KLC	EET CLE	04/15/24 10:06
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609698	AJC	EET CLE	04/15/24 21:10
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609849	AJC	EET CLE	04/16/24 19:19
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 11:58
Total/NA	Analysis	300.0		1	610281	JWW	EET CLE	04/20/24 18:23
Total/NA	Analysis	SM 2540C		1	609905	UWU2	EET CLE	04/17/24 11:04

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: EB-001-F-A3-20240410-01
Lab Sample ID: 240-202722-4
Date Collected: 04/10/24 17:00
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6010D		1	609628	KLC	EET CLE	04/15/24 10:10
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609698	AJC	EET CLE	04/15/24 21:14
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609849	AJC	EET CLE	04/16/24 19:24
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 12:01
Total/NA	Analysis	300.0		1	610281	JWW	EET CLE	04/20/24 18:02
Total/NA	Analysis	SM 2540C		1	609905	UWU2	EET CLE	04/17/24 11:04

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202722-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins Environment Testing America

Client Information	Sampler: H. Lukeylas	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
9631-F-A3-20240410-01	4-10-24	1402	G	W	N		1	1	1		
9631-F-A3-20240410-MS-01	"	1402	G	W	N	Y	1	1	1		
9631-F-A3-20240410-MSD-01	"	1402	G	W	N	Y	1	1	1		
Dup-001-F-A3-20240410-01	"	—	G	W	N		1	1	1		
Field Blank-001-F-A3-20240410-01	"	1415	G	W	N		1	1	1		
EB-001-F-A3-20240410-01	"	1700	G	W	N		1	1	1		

240-202722 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	4-11-24/0845	KEMRON	Ashley Deal	4.11.24 1.05	ETA
Relinquished by: Ashley Deal	4.11.24 1700	ETA	[illegible]	4-12-24 8AM	[illegible]
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # _____
Barberton Facility

Client LIGHT+Stone Site Name _____ Cooler unpacked by: M. Koch
Cooler Received on 4-11-24 Opened on 4-12-24
FedEx 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other
Receipt After-hours. Drop-off Date/Time _____ Storage Location _____
Eurofins Cooler # (Ice) Foam Box Client Cooler Box Other _____
Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____
COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt (X) See Multiple Cooler Form
IR GUN # _____ (CF _____ °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12.	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC329089
14	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by

_____
_____
_____
_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory
Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
2 EC Client Box Other	IR GUN #: 18	4.4	4.4	(Wet Ice) Blue Ice Dry Ice Water None
2 EC Client Box Other	IR GUN #: 18	1.2	1.2	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

4/12/2024

Login Container Summary Report

240-202722

4/22/2024

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F A3-20240410-01	240-202722-A 1	Plastic 250ml - unpreserved				
9631 F-A3 20240410-01	240-202722-A-1 MS	Plastic 250ml unpreserved				
9631-F A3-20240410-01	240-202722-A 1 MSD	Plastic 250ml - unpreserved				
9631-F-A3 20240410-01	240-202722-B-1	Plastic 250ml unpreserved				
9631-F A3-20240410-01	240-202722-B 1 MS	Plastic 250ml - unpreserved				
9631 F-A3-20240410-01	240-202722-B-1 MSD	Plastic 250ml - unpreserved				
9631 F-A3-20240410-01	240-202722-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A3-20240410-01	240-202722-C-1 MS	Plastic 500ml with Nitric Acid	<2			
9631-F A3-20240410-01	240-202722-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
DUP-001 F A3-20240410-01	240-202722-A-2	Plastic 250ml - unpreserved				
DUP-001-F-A3 20240410-01	240-202722 B-2	Plastic 250ml unpreserved				
DUP-001 F-A3-20240410-01	240-202722-C-2	Plastic 500ml - with Nitric Acid	<2			
FIELDBLANK-001-F-A3 20240410-01	240-202722-A-3	Plastic 250ml unpreserved				
FIELDBLANK-001-F-A3 20240410-01	240-202722-B-3	Plastic 250ml - unpreserved				
FIELDBLANK-001 F-A3-20240410-01	240-202722-C-3	Plastic 500ml with Nitric Acid	<2			
EB-001-F-A3-20240410-01	240-202722-A-4	Plastic 250ml - unpreserved				
EB-001 F-A3 20240410-01	240-202722-B-4	Plastic 250ml - unpreserved				
EB-001 F A3-20240410-01	240-202722-C-4	Plastic 500ml with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 5/16/2024 5:39:06 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-202726-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
5/16/2024 5:39:06 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-202726-1 Eurofins Cleveland

Job Narrative
240-202726-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/12/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.2°C and 4.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A4-20240410-01 (240-202726-1) and DUP-001-F-A4-20240410-01 (240-202726-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-657072

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240410-01 (240-202726-1), 9631-F-A4-20240410-01 (240-202726-1[MS]), 9631-F-A4-20240410-01 (240-202726-1[MSD]) and DUP-001-F-A4-20240410-01 (240-202726-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 prep batch 160-657072:

Due to the high concentration of Ra-226, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 160-657072 and analytical batch 160-661646 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. 9631-F-A4-20240410-01 (240-202726-1[MS]) and 9631-F-A4-20240410-01 (240-202726-1[MSD])

Method 9315_Ra226: Radium-226 prep batch 160-657072:

The following samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. Samples with significant salt-like compounds had a native correction applied. The high concentrations of salt-like compounds can interfere with the barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance.The data have been qualified and reported. 9631-F-A4-20240410-01 (240-202726-1), 9631-F-A4-20240410-01 (240-202726-1[MS]), 9631-F-A4-20240410-01 (240-202726-1[MSD]) and DUP-001-F-A4-20240410-01 (240-202726-2)

Method 9320_Ra228: Radium 228 prep batch 160-657073

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240410-01 (240-202726-1), 9631-F-A4-20240410-01 (240-202726-1[MS]), 9631-F-A4-20240410-01 (240-202726-1[MSD]) and DUP-001-F-A4-20240410-01 (240-202726-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 prep batch 160-657073:

Job ID: 240-202726-1 (Continued) Eurofins Cleveland

Due to the high concentration of Ra-228, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 160-657073 and analytical batch 160-660949 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. 9631-F-A4-20240410-01 (240-202726-1[MS]) and 9631-F-A4-20240410-01 (240-202726-1[MSD])

Method 9320_Ra228: Radium-228 prep batch 160-657073:

The following samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. Samples with significant salt-like compounds had a native correction applied. The high concentrations of salt-like compounds can interfere with the barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance.The data have been qualified and reported. 9631-F-A4-20240410-01 (240-202726-1), 9631-F-A4-20240410-01 (240-202726-1[MS]), 9631-F-A4-20240410-01 (240-202726-1[MSD]) and DUP-001-F-A4-20240410-01 (240-202726-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-202726-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202726-1	9631-F-A4-20240410-01	Water	04/10/24 14:02	04/12/24 08:00
240-202726-2	DUP-001-F-A4-20240410-01	Water	04/10/24 00:00	04/12/24 08:00
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Water	04/10/24 14:45	04/12/24 08:00
240-202726-4	EB-001-F-A4-20240410-01	Water	04/10/24 17:00	04/12/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-202726-1

Client Sample ID: 9631-F-A4-20240410-01 — Lab Sample ID: 240-202726-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	37000		100	45	ug/L	20		6020B	Total Recoverable
Calcium	1400000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	2.3	F1	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	350		160	33	ug/L	20		6020B	Total Recoverable
Magnesium	480000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	5.5		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	26000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	3.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	13000000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.75	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	98		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	98		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: DUP-001-F-A4-20240410-01 — Lab Sample ID: 240-202726-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	35000		100	45	ug/L	20		6020B	Total Recoverable
Beryllium	0.66	J	1.0	0.62	ug/L	1		6020B	Total Recoverable
Calcium	1400000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	3.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	310		160	33	ug/L	20		6020B	Total Recoverable
Magnesium	470000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	8.4		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	25000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	3.9	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	12000000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.79	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	88		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	88		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELDBLANK-001-F-A4-20240410-01 — Lab Sample ID: 240-202726-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	5.4		5.0	2.2	ug/L	1		6020B	Total Recoverable
Magnesium	89	J	1000	61	ug/L	1		6020B	Total Recoverable
Thallium	0.22	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	2.8	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	2.8	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: EB-001-F-A4-20240410-01 — Lab Sample ID: 240-202726-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-202726-1

Client Sample ID: 9631-F-A4-20240410-01
Date Collected: 04/10/24 14:02
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202726-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/12/24 15:00	04/15/24 19:47	1
Arsenic	**2.1**	**J**	5.0	0.75	ug/L		04/12/24 15:00	04/15/24 19:47	1
Barium	**37000**		100	45	ug/L		04/12/24 15:00	04/16/24 18:05	20
Beryllium	ND		1.0	0.62	ug/L		04/12/24 15:00	04/15/24 19:47	1
Cadmium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 19:47	1
Calcium	**1400000**		1000	250	ug/L		04/12/24 15:00	04/15/24 19:47	1
Chromium	ND		5.0	1.2	ug/L		04/12/24 15:00	04/15/24 19:47	1
Cobalt	**2.3**	**F1**	1.0	0.19	ug/L		04/12/24 15:00	04/15/24 19:47	1
Lead	ND		1.0	0.45	ug/L		04/12/24 15:00	04/15/24 19:47	1
Lithium	**350**		160	33	ug/L		04/12/24 15:00	04/16/24 18:05	20
Magnesium	**480000**		1000	61	ug/L		04/12/24 15:00	04/15/24 19:47	1
Molybdenum	**5.5**		5.0	1.1	ug/L		04/12/24 15:00	04/15/24 19:47	1
Potassium	**26000**		1000	220	ug/L		04/12/24 15:00	04/15/24 19:47	1
Selenium	**3.3**	**J**	5.0	0.89	ug/L		04/12/24 15:00	04/15/24 19:47	1
Sodium	**13000000**		20000	6600	ug/L		04/12/24 15:00	04/16/24 18:05	20
Thallium	**0.75**	**J**	1.0	0.20	ug/L		04/12/24 15:00	04/15/24 19:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/12/24 14:00	04/15/24 11:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**98**		5.0	2.6	mg/L			04/12/24 12:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**98**		5.0	2.6	mg/L			04/12/24 12:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 12:44	1
Fluoride (EPA 300.0-1993 R2.1)	ND		5.0	2.4	mg/L			04/27/24 03:55	100

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**44.4**		1.34	4.21	1.00	0.122	pCi/L	04/16/24 08:18	05/15/24 13:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*195*	*X*	*30 - 110*	*04/16/24 08:18*	*05/15/24 13:52*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**73.8**		2.46	7.22	1.00	0.433	pCi/L	04/16/24 08:29	05/09/24 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*195*	*X*	*30 - 110*	*04/16/24 08:29*	*05/09/24 11:51*	*1*
Y Carrier	*82.2*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:51*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-202726-1

Client Sample ID: 9631-F-A4-20240410-01
Date Collected: 04/10/24 14:02
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202726-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	118		2.80	8.36	5.00	0.433	pCi/L		05/16/24 16:29	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-202726-1

Client Sample ID: DUP-001-F-A4-20240410-01

Date Collected: 04/10/24 00:00
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202726-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/12/24 15:00	04/15/24 20:19	1
Arsenic	**2.7**	**J**	5.0	0.75	ug/L		04/12/24 15:00	04/15/24 20:19	1
Barium	**35000**		100	45	ug/L		04/12/24 15:00	04/16/24 18:29	20
Beryllium	**0.66**	**J**	1.0	0.62	ug/L		04/12/24 15:00	04/15/24 20:19	1
Cadmium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 20:19	1
Calcium	**1400000**		1000	250	ug/L		04/12/24 15:00	04/15/24 20:19	1
Chromium	ND		5.0	1.2	ug/L		04/12/24 15:00	04/15/24 20:19	1
Cobalt	**3.6**		1.0	0.19	ug/L		04/12/24 15:00	04/15/24 20:19	1
Lead	ND		1.0	0.45	ug/L		04/12/24 15:00	04/15/24 20:19	1
Lithium	**310**		160	33	ug/L		04/12/24 15:00	04/16/24 18:29	20
Magnesium	**470000**		1000	61	ug/L		04/12/24 15:00	04/15/24 20:19	1
Molybdenum	**8.4**		5.0	1.1	ug/L		04/12/24 15:00	04/15/24 20:19	1
Potassium	**25000**		1000	220	ug/L		04/12/24 15:00	04/15/24 20:19	1
Selenium	**3.9**	**J**	5.0	0.89	ug/L		04/12/24 15:00	04/15/24 20:19	1
Sodium	**12000000**		20000	6600	ug/L		04/12/24 15:00	04/16/24 18:29	20
Thallium	**0.79**	**J**	1.0	0.20	ug/L		04/12/24 15:00	04/15/24 20:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/12/24 14:00	04/15/24 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**88**		5.0	2.6	mg/L			04/12/24 12:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**88**		5.0	2.6	mg/L			04/12/24 12:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 12:53	1
Fluoride (EPA 300.0-1993 R2.1)	ND		5.0	2.4	mg/L			04/27/24 05:56	100

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**39.9**		1.29	3.82	1.00	0.127	pCi/L	04/16/24 08:18	05/15/24 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*201*	*X*	*30 - 110*	*04/16/24 08:18*	*05/15/24 13:54*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**67.6**		2.46	6.68	1.00	0.500	pCi/L	04/16/24 08:29	05/09/24 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*201*	*X*	*30 - 110*	*04/16/24 08:29*	*05/09/24 11:52*	*1*
Y Carrier	*75.5*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:52*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: DUP-001-F-A4-20240410-01
Lab Sample ID: 240-202726-2
Date Collected: 04/10/24 00:00
Matrix: Water
Date Received: 04/12/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	107		2.78	7.70	5.00	0.500	pCi/L		05/16/24 16:29	1

Client Sample ID: FIELDBLANK-001-F-A4-20240410-01
Date Collected: 04/10/24 14:45
Date Received: 04/12/24 08:00

Lab Sample ID: 240-202726-3
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/12/24 15:00	04/15/24 20:24	1
Arsenic	ND		5.0	0.75	ug/L		04/12/24 15:00	04/15/24 20:24	1
Barium	**5.4**		5.0	2.2	ug/L		04/12/24 15:00	04/15/24 20:24	1
Beryllium	ND		1.0	0.62	ug/L		04/12/24 15:00	04/15/24 20:24	1
Cadmium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 20:24	1
Calcium	ND		1000	250	ug/L		04/12/24 15:00	04/15/24 20:24	1
Chromium	ND		5.0	1.2	ug/L		04/12/24 15:00	04/15/24 20:24	1
Cobalt	ND		1.0	0.19	ug/L		04/12/24 15:00	04/15/24 20:24	1
Lead	ND		1.0	0.45	ug/L		04/12/24 15:00	04/15/24 20:24	1
Lithium	ND		8.0	1.7	ug/L		04/12/24 15:00	04/16/24 18:33	1
Magnesium	**89**	**J**	1000	61	ug/L		04/12/24 15:00	04/15/24 20:24	1
Molybdenum	ND		5.0	1.1	ug/L		04/12/24 15:00	04/15/24 20:24	1
Potassium	ND		1000	220	ug/L		04/12/24 15:00	04/15/24 20:24	1
Selenium	ND		5.0	0.89	ug/L		04/12/24 15:00	04/15/24 20:24	1
Sodium	ND		1000	330	ug/L		04/12/24 15:00	04/16/24 18:33	1
Thallium	**0.22**	**J**	1.0	0.20	ug/L		04/12/24 15:00	04/15/24 20:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/12/24 14:00	04/15/24 11:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**2.8**	**J**	5.0	2.6	mg/L			04/12/24 12:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**2.8**	**J**	5.0	2.6	mg/L			04/12/24 12:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 12:57	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			04/27/24 11:18	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0203	U	0.0537	0.0538	1.00	0.101	pCi/L	04/16/24 08:18	05/15/24 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*30 - 110*	*04/16/24 08:18*	*05/15/24 13:54*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.629**		0.338	0.343	1.00	0.470	pCi/L	04/16/24 08:29	05/09/24 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:52*	*1*
Y Carrier	*82.2*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:52*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELDBLANK-001-F-A4-20240410-01
Lab Sample ID: 240-202726-3
Date Collected: 04/10/24 14:45
Matrix: Water
Date Received: 04/12/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.650		0.342	0.347	5.00	0.470	pCi/L		05/16/24 16:29	1

Client Sample ID: EB-001-F-A4-20240410-01

Lab Sample ID: 240-202726-4

Date Collected: 04/10/24 17:00

Matrix: Water

Date Received: 04/12/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/12/24 15:00	04/15/24 20:28	1
Arsenic	ND		5.0	0.75	ug/L		04/12/24 15:00	04/15/24 20:28	1
Barium	ND		5.0	2.2	ug/L		04/12/24 15:00	04/15/24 20:28	1
Beryllium	ND		1.0	0.62	ug/L		04/12/24 15:00	04/15/24 20:28	1
Cadmium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 20:28	1
Calcium	ND		1000	250	ug/L		04/12/24 15:00	04/15/24 20:28	1
Chromium	ND		5.0	1.2	ug/L		04/12/24 15:00	04/15/24 20:28	1
Cobalt	ND		1.0	0.19	ug/L		04/12/24 15:00	04/15/24 20:28	1
Lead	ND		1.0	0.45	ug/L		04/12/24 15:00	04/15/24 20:28	1
Lithium	ND		8.0	1.7	ug/L		04/12/24 15:00	04/16/24 18:47	1
Magnesium	ND		1000	61	ug/L		04/12/24 15:00	04/15/24 20:28	1
Molybdenum	ND		5.0	1.1	ug/L		04/12/24 15:00	04/15/24 20:28	1
Potassium	ND		1000	220	ug/L		04/12/24 15:00	04/15/24 20:28	1
Selenium	ND		5.0	0.89	ug/L		04/12/24 15:00	04/15/24 20:28	1
Sodium	ND		1000	330	ug/L		04/12/24 15:00	04/16/24 18:47	1
Thallium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 20:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/12/24 14:00	04/15/24 11:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 13:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 13:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/12/24 13:04	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			04/27/24 10:18	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0233	U	0.0295	0.0296	1.00	0.0890	pCi/L	04/16/24 08:18	05/15/24 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*04/16/24 08:18*	*05/15/24 13:54*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.620**		0.337	0.341	1.00	0.470	pCi/L	04/16/24 08:29	05/09/24 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:52*	*1*
Y Carrier	*82.2*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:52*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: EB-001-F-A4-20240410-01
Lab Sample ID: 240-202726-4
Date Collected: 04/10/24 17:00
Matrix: Water
Date Received: 04/12/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.597		0.338	0.342	5.00	0.470	pCi/L		05/16/24 16:29	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-202726-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-202726-1	9631-F-A4-20240410-01	195 X
240-202726-1 MS	9631-F-A4-20240410-01	178 X
240-202726-1 MSD	9631-F-A4-20240410-01	165 X
240-202726-2	DUP-001-F-A4-20240410-01	201 X
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	95.7
240-202726-4	EB-001-F-A4-20240410-01	97.5
LCS 160-657072/2-A	Lab Control Sample	94.7
MB 160-657072/1-A	Method Blank	89.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-202726-1	9631-F-A4-20240410-01	195 X	82.2
240-202726-1 MS	9631-F-A4-20240410-01	178 X	85.6
240-202726-1 MSD	9631-F-A4-20240410-01	165 X	80.4
240-202726-2	DUP-001-F-A4-20240410-01	201 X	75.5
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	95.7	82.2
240-202726-4	EB-001-F-A4-20240410-01	97.5	82.2
LCS 160-657073/2-A	Lab Control Sample	94.7	83.0
MB 160-657073/1-A	Method Blank	89.3	80.0

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-609436/1-A
Matrix: Water
Analysis Batch: 609698

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/12/24 15:00	04/15/24 19:38	1
Arsenic	ND		5.0	0.75	ug/L		04/12/24 15:00	04/15/24 19:38	1
Barium	ND		5.0	2.2	ug/L		04/12/24 15:00	04/15/24 19:38	1
Beryllium	ND		1.0	0.62	ug/L		04/12/24 15:00	04/15/24 19:38	1
Cadmium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 19:38	1
Calcium	ND		1000	250	ug/L		04/12/24 15:00	04/15/24 19:38	1
Chromium	ND		5.0	1.2	ug/L		04/12/24 15:00	04/15/24 19:38	1
Cobalt	ND		1.0	0.19	ug/L		04/12/24 15:00	04/15/24 19:38	1
Lead	ND		1.0	0.45	ug/L		04/12/24 15:00	04/15/24 19:38	1
Magnesium	ND		1000	61	ug/L		04/12/24 15:00	04/15/24 19:38	1
Molybdenum	ND		5.0	1.1	ug/L		04/12/24 15:00	04/15/24 19:38	1
Potassium	ND		1000	220	ug/L		04/12/24 15:00	04/15/24 19:38	1
Selenium	ND		5.0	0.89	ug/L		04/12/24 15:00	04/15/24 19:38	1
Sodium	ND		1000	330	ug/L		04/12/24 15:00	04/15/24 19:38	1
Thallium	ND		1.0	0.20	ug/L		04/12/24 15:00	04/15/24 19:38	1

Lab Sample ID: MB 240-609436/1-A
Matrix: Water
Analysis Batch: 609849

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		8.0	1.7	ug/L		04/12/24 15:00	04/16/24 17:56	1

Lab Sample ID: LCS 240-609436/2-A
Matrix: Water
Analysis Batch: 609698

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	95.1		ug/L		95	80 - 120
Arsenic	1000	977		ug/L		98	80 - 120
Barium	1000	937		ug/L		94	80 - 120
Beryllium	500	483		ug/L		97	80 - 120
Cadmium	500	467		ug/L		93	80 - 120
Calcium	25000	22900		ug/L		91	80 - 120
Chromium	500	459		ug/L		92	80 - 120
Cobalt	500	465		ug/L		93	80 - 120
Lead	500	488		ug/L		98	80 - 120
Magnesium	25000	23800		ug/L		95	80 - 120
Molybdenum	500	468		ug/L		94	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120
Selenium	1000	979		ug/L		98	80 - 120
Sodium	25000	23800		ug/L		95	80 - 120
Thallium	1000	990		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-609436/2-A
Matrix: Water
Analysis Batch: 609849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Lithium			500	466		ug/L		93	80 - 120		

Lab Sample ID: 240-202726-1 MS
Matrix: Water
Analysis Batch: 609698

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	ND		100	94.7		ug/L		95	80 - 120		
Arsenic	2.1	J	1000	865		ug/L		86	80 - 120		
Beryllium	ND		500	576		ug/L		115	80 - 120		
Cadmium	ND		500	432		ug/L		86	80 - 120		
Calcium	1400000		25000	1510000	4	ug/L		262	80 - 120		
Chromium	ND		500	424		ug/L		85	80 - 120		
Cobalt	2.3	F1	500	391	F1	ug/L		78	80 - 120		
Lead	ND		500	437		ug/L		87	80 - 120		
Magnesium	480000		25000	509000	4	ug/L		103	80 - 120		
Molybdenum	5.5		500	564		ug/L		112	80 - 120		
Potassium	26000		25000	51900		ug/L		106	80 - 120		
Selenium	3.3	J	1000	859		ug/L		86	80 - 120		
Thallium	0.75	J	1000	911		ug/L		91	80 - 120		

Lab Sample ID: 240-202726-1 MS
Matrix: Water
Analysis Batch: 609849

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium	37000		1000	38500	4	ug/L		105	80 - 120		
Lithium	350		500	845		ug/L		99	80 - 120		
Sodium	13000000		25000	13000000	4	ug/L		-548	80 - 120		

Lab Sample ID: 240-202726-1 MSD
Matrix: Water
Analysis Batch: 609698

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total Recoverable
Prep Batch: 609436

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	94.0		ug/L		94	80 - 120	1	20
Arsenic	2.1	J	1000	847		ug/L		85	80 - 120	2	20
Beryllium	ND		500	593		ug/L		119	80 - 120	3	20
Cadmium	ND		500	424		ug/L		85	80 - 120	2	20
Calcium	1400000		25000	1470000	4	ug/L		105	80 - 120	3	20
Chromium	ND		500	415		ug/L		83	80 - 120	2	20
Cobalt	2.3	F1	500	384	F1	ug/L		76	80 - 120	2	20
Lead	ND		500	423		ug/L		85	80 - 120	3	20
Magnesium	480000		25000	494000	4	ug/L		44	80 - 120	3	20
Molybdenum	5.5		500	555		ug/L		110	80 - 120	2	20
Potassium	26000		25000	51200		ug/L		103	80 - 120	1	20
Selenium	3.3	J	1000	852		ug/L		85	80 - 120	1	20
Thallium	0.75	J	1000	876		ug/L		88	80 - 120	4	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-202726-1 MSD — **Client Sample ID: 9631-F-A4-20240410-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 609849 — **Prep Batch: 609436**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	37000		1000	38700	4	ug/L		129	80 - 120	1	20
Lithium	350		500	842		ug/L		99	80 - 120	0	20
Sodium	13000000		25000	13300000	4	ug/L		387	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-609438/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609647 — **Prep Batch: 609438**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/12/24 14:00	04/15/24 11:28	1

Lab Sample ID: LCS 240-609438/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609647 — **Prep Batch: 609438**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.89		ug/L		98	80 - 120

Lab Sample ID: 240-202726-1 MS — **Client Sample ID: 9631-F-A4-20240410-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609647 — **Prep Batch: 609438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.920		ug/L		92	80 - 120

Lab Sample ID: 240-202726-1 MSD — **Client Sample ID: 9631-F-A4-20240410-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609647 — **Prep Batch: 609438**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.916		ug/L		92	80 - 120	0	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-609478/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 609478

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/12/24 11:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/12/24 11:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/12/24 11:40	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-609478/3
Matrix: Water
Analysis Batch: 609478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	80.3		mg/L		100	86 - 123

Lab Sample ID: 240-202726-1 DU
Matrix: Water
Analysis Batch: 609478

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	98		94.7		mg/L		3	20
Bicarbonate Alkalinity as CaCO3	98		94.7		mg/L		3	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Lab Sample ID: MB 240-609966/29
Matrix: Water
Analysis Batch: 609966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/17/24 12:36	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/24 12:36	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/24 12:36	1

Lab Sample ID: MB 240-609966/3
Matrix: Water
Analysis Batch: 609966

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/17/24 10:23	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/24 10:23	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/17/24 10:23	1

Lab Sample ID: LCS 240-609966/28
Matrix: Water
Analysis Batch: 609966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	83.8		mg/L		104	86 - 123

Lab Sample ID: 240-202726-1 DU
Matrix: Water
Analysis Batch: 609966

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	94		93.1		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	94		93.1		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-611008/3
Matrix: Water
Analysis Batch: 611008

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			04/27/24 03:15	1

Lab Sample ID: LCS 240-611008/4
Matrix: Water
Analysis Batch: 611008

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.60		mg/L		104	90 - 110

Lab Sample ID: 240-202726-1 MS
Matrix: Water
Analysis Batch: 611008

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	ND		250	259		mg/L		104	80 - 120

Lab Sample ID: 240-202726-1 MSD
Matrix: Water
Analysis Batch: 611008

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		250	268		mg/L		107	80 - 120	3	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-657072/1-A
Matrix: Water
Analysis Batch: 661817

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657072

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01402	U	0.0577	0.0577	1.00	0.114	pCi/L	04/16/24 08:18	05/15/24 10:02	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*30 - 110*	*04/16/24 08:18*	*05/15/24 10:02*	*1*

Lab Sample ID: LCS 160-657072/2-A
Matrix: Water
Analysis Batch: 661817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657072

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.79		1.14	1.00	0.110	pCi/L	95	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.7*		*30 - 110*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: 240-202726-1 MS
Matrix: Water
Analysis Batch: 661646

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA
Prep Batch: 657072

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	44.4		11.2	42.13	F1	4.01	1.00	0.128	pCi/L	-20	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*178*	*X*	*30 - 110*

Lab Sample ID: 240-202726-1 MSD
Matrix: Water
Analysis Batch: 661646

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA
Prep Batch: 657072

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	44.4		11.3	39.26	F1	3.76	1.00	0.152	pCi/L	-45	60 - 140	0.37	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*165*	*X*	*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-657073/1-A
Matrix: Water
Analysis Batch: 660952

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657073

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6343		0.351	0.355	1.00	0.487	pCi/L	04/16/24 08:29	05/09/24 11:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:49*	*1*
Y Carrier	*80.0*		*30 - 110*	*04/16/24 08:29*	*05/09/24 11:49*	*1*

Lab Sample ID: LCS 160-657073/2-A
Matrix: Water
Analysis Batch: 660952

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 657073

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228			8.96	9.677		1.29	1.00	0.480	pCi/L	108	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.7*		*30 - 110*
Y Carrier	*83.0*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 240-202726-1 MS
Matrix: Water
Analysis Batch: 660949

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA
Prep Batch: 657073

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	73.8		8.89	66.42	F1	6.53	1.00	0.432	pCi/L	-83	60 - 140

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*178*	*X*	*30 - 110*
Y Carrier	*85.6*		*30 - 110*

Lab Sample ID: 240-202726-1 MSD
Matrix: Water
Analysis Batch: 660949

Client Sample ID: 9631-F-A4-20240410-01
Prep Type: Total/NA
Prep Batch: 657073

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	73.8		8.91	64.29	F1	6.36	1.00	0.547	pCi/L	-107	60 - 140	0.17	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*165*	*X*	*30 - 110*
Y Carrier	*80.4*		*30 - 110*

Metals

Prep Batch: 609436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total Recoverable	Water	3005A	
240-202726-2	DUP-001-F-A4-20240410-01	Total Recoverable	Water	3005A	
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total Recoverable	Water	3005A	
240-202726-4	EB-001-F-A4-20240410-01	Total Recoverable	Water	3005A	
MB 240-609436/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-609436/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-202726-1 MS	9631-F-A4-20240410-01	Total Recoverable	Water	3005A	
240-202726-1 MSD	9631-F-A4-20240410-01	Total Recoverable	Water	3005A	

Prep Batch: 609438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total/NA	Water	7470A	
240-202726-2	DUP-001-F-A4-20240410-01	Total/NA	Water	7470A	
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total/NA	Water	7470A	
240-202726-4	EB-001-F-A4-20240410-01	Total/NA	Water	7470A	
MB 240-609438/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-609438/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-202726-1 MS	9631-F-A4-20240410-01	Total/NA	Water	7470A	
240-202726-1 MSD	9631-F-A4-20240410-01	Total/NA	Water	7470A	

Analysis Batch: 609647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total/NA	Water	7470A	609438
240-202726-2	DUP-001-F-A4-20240410-01	Total/NA	Water	7470A	609438
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total/NA	Water	7470A	609438
240-202726-4	EB-001-F-A4-20240410-01	Total/NA	Water	7470A	609438
MB 240-609438/1-A	Method Blank	Total/NA	Water	7470A	609438
LCS 240-609438/2-A	Lab Control Sample	Total/NA	Water	7470A	609438
240-202726-1 MS	9631-F-A4-20240410-01	Total/NA	Water	7470A	609438
240-202726-1 MSD	9631-F-A4-20240410-01	Total/NA	Water	7470A	609438

Analysis Batch: 609698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-2	DUP-001-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-4	EB-001-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
MB 240-609436/1-A	Method Blank	Total Recoverable	Water	6020B	609436
LCS 240-609436/2-A	Lab Control Sample	Total Recoverable	Water	6020B	609436
240-202726-1 MS	9631-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-1 MSD	9631-F-A4-20240410-01	Total Recoverable	Water	6020B	609436

Analysis Batch: 609849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-2	DUP-001-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
240-202726-4	EB-001-F-A4-20240410-01	Total Recoverable	Water	6020B	609436
MB 240-609436/1-A	Method Blank	Total Recoverable	Water	6020B	609436
LCS 240-609436/2-A	Lab Control Sample	Total Recoverable	Water	6020B	609436
240-202726-1 MS	9631-F-A4-20240410-01	Total Recoverable	Water	6020B	609436

Metals (Continued)

Analysis Batch: 609849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1 MSD	9631-F-A4-20240410-01	Total Recoverable	Water	6020B	609436

General Chemistry

Analysis Batch: 609478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total/NA	Water	2320B-1997	
240-202726-2	DUP-001-F-A4-20240410-01	Total/NA	Water	2320B-1997	
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total/NA	Water	2320B-1997	
240-202726-4	EB-001-F-A4-20240410-01	Total/NA	Water	2320B-1997	
MB 240-609478/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-609478/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-202726-1 DU	9631-F-A4-20240410-01	Total/NA	Water	2320B-1997	

Analysis Batch: 609966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-609966/29	Method Blank	Total/NA	Water	2320B-1997	
MB 240-609966/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-609966/28	Lab Control Sample	Total/NA	Water	2320B-1997	
240-202726-1 DU	9631-F-A4-20240410-01	Total/NA	Water	2320B-1997	

Analysis Batch: 611008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total/NA	Water	300.0-1993 R2.1	
240-202726-2	DUP-001-F-A4-20240410-01	Total/NA	Water	300.0-1993 R2.1	
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total/NA	Water	300.0-1993 R2.1	
240-202726-4	EB-001-F-A4-20240410-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-611008/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-611008/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-202726-1 MS	9631-F-A4-20240410-01	Total/NA	Water	300.0-1993 R2.1	
240-202726-1 MSD	9631-F-A4-20240410-01	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 657072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total/NA	Water	PrecSep-21	
240-202726-2	DUP-001-F-A4-20240410-01	Total/NA	Water	PrecSep-21	
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total/NA	Water	PrecSep-21	
240-202726-4	EB-001-F-A4-20240410-01	Total/NA	Water	PrecSep-21	
MB 160-657072/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-657072/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-202726-1 MS	9631-F-A4-20240410-01	Total/NA	Water	PrecSep-21	
240-202726-1 MSD	9631-F-A4-20240410-01	Total/NA	Water	PrecSep-21	

Prep Batch: 657073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202726-1	9631-F-A4-20240410-01	Total/NA	Water	PrecSep_0	
240-202726-2	DUP-001-F-A4-20240410-01	Total/NA	Water	PrecSep_0	
240-202726-3	FIELDBLANK-001-F-A4-20240410-01	Total/NA	Water	PrecSep_0	
240-202726-4	EB-001-F-A4-20240410-01	Total/NA	Water	PrecSep_0	
MB 160-657073/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 657073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-657073/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-202726-1 MS	9631-F-A4-20240410-01	Total/NA	Water	PrecSep_0	
240-202726-1 MSD	9631-F-A4-20240410-01	Total/NA	Water	PrecSep_0	

Client Sample ID: 9631-F-A4-20240410-01
Lab Sample ID: 240-202726-1

Date Collected: 04/10/24 14:02
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609698	AJC	EET CLE	04/15/24 19:47
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		20	609849	AJC	EET CLE	04/16/24 18:05
Total/NA	Prep	7470A			609438	BN	EET CLE	04/12/24 14:00
Total/NA	Analysis	7470A		1	609647	S4FJ	EET CLE	04/15/24 11:33
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 12:44
Total/NA	Analysis	300.0-1993 R2.1		100	611008	JWW	EET CLE	04/27/24 03:55
Total/NA	Prep	PrecSep-21			657072	MLT	EET SL	04/16/24 08:18
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 13:52
Total/NA	Prep	PrecSep_0			657073	MLT	EET SL	04/16/24 08:29
Total/NA	Analysis	9320		1	660949	MLK	EET SL	05/09/24 11:51
Total/NA	Analysis	Ra226_Ra228		1	662064	EMH	EET SL	05/16/24 16:29

Client Sample ID: DUP-001-F-A4-20240410-01
Lab Sample ID: 240-202726-2

Date Collected: 04/10/24 00:00
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609698	AJC	EET CLE	04/15/24 20:19
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		20	609849	AJC	EET CLE	04/16/24 18:29
Total/NA	Prep	7470A			609438	BN	EET CLE	04/12/24 14:00
Total/NA	Analysis	7470A		1	609647	S4FJ	EET CLE	04/15/24 11:41
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 12:53
Total/NA	Analysis	300.0-1993 R2.1		100	611008	JWW	EET CLE	04/27/24 05:56
Total/NA	Prep	PrecSep-21			657072	MLT	EET SL	04/16/24 08:18
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 13:54
Total/NA	Prep	PrecSep_0			657073	MLT	EET SL	04/16/24 08:29
Total/NA	Analysis	9320		1	660949	MLK	EET SL	05/09/24 11:52
Total/NA	Analysis	Ra226_Ra228		1	662064	EMH	EET SL	05/16/24 16:29

Client Sample ID: FIELDBLANK-001-F-A4-20240410-01
Lab Sample ID: 240-202726-3

Date Collected: 04/10/24 14:45
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609698	AJC	EET CLE	04/15/24 20:24
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609849	AJC	EET CLE	04/16/24 18:33
Total/NA	Prep	7470A			609438	BN	EET CLE	04/12/24 14:00
Total/NA	Analysis	7470A		1	609647	S4FJ	EET CLE	04/15/24 11:44

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELDBLANK-001-F-A4-20240410-01
Lab Sample ID: 240-202726-3

Date Collected: 04/10/24 14:45
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 12:57
Total/NA	Analysis	300.0-1993 R2.1		1	611008	JWW	EET CLE	04/27/24 11:18
Total/NA	Prep	PrecSep-21			657072	MLT	EET SL	04/16/24 08:18
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 13:54
Total/NA	Prep	PrecSep_0			657073	MLT	EET SL	04/16/24 08:29
Total/NA	Analysis	9320		1	660949	MLK	EET SL	05/09/24 11:52
Total/NA	Analysis	Ra226_Ra228		1	662064	EMH	EET SL	05/16/24 16:29

Client Sample ID: EB-001-F-A4-20240410-01
Lab Sample ID: 240-202726-4

Date Collected: 04/10/24 17:00
Matrix: Water
Date Received: 04/12/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609698	AJC	EET CLE	04/15/24 20:28
Total Recoverable	Prep	3005A			609436	BN	EET CLE	04/12/24 15:00
Total Recoverable	Analysis	6020B		1	609849	AJC	EET CLE	04/16/24 18:47
Total/NA	Prep	7470A			609438	BN	EET CLE	04/12/24 14:00
Total/NA	Analysis	7470A		1	609647	S4FJ	EET CLE	04/15/24 11:46
Total/NA	Analysis	2320B-1997		1	609478	QUY8	EET CLE	04/12/24 13:04
Total/NA	Analysis	300.0-1993 R2.1		1	611008	JWW	EET CLE	04/27/24 10:18
Total/NA	Prep	PrecSep-21			657072	MLT	EET SL	04/16/24 08:18
Total/NA	Analysis	9315		1	661646	SWS	EET SL	05/15/24 13:54
Total/NA	Prep	PrecSep_0			657073	MLT	EET SL	04/16/24 08:29
Total/NA	Analysis	9320		1	660949	MLK	EET SL	05/09/24 11:52
Total/NA	Analysis	Ra226_Ra228		1	662064	EMH	EET SL	05/16/24 16:29

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202726-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 200

eurofins Environment Testing America

Client Information	Sampler: H. Luckey dbo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9631-F-A4-20240410-01	4-10-24	1402	G	Water	N		1	1	1	2		
9631-F-A4-20240410-MS-01	"	1402	G	Water	N	Y	1	1	1	2		
9631-F-A4-20240410-MSD-01	"	1402	G	Water	N	Y	1	1	1	2		
Dup-001-F-A4-20240410-01	"	—	G	Water	N		1	1	1	2		
FieldBlank-001-F-A4-20240410-01	"	1445	G	Water	N		1	1	1	2		
EB-001-F-A4-20240410-01	"	1700	G	W	N		1	1	1	2		

240-202726 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4-11-24/0845	KEMRON	Ashley Deal	4.11.24 1:05	EJA
Relinquished by: Ashley Deal	Date/Time: 4.11.24 1700	Company EJA	Received by:	Date/Time: 4-12-24 800	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client LIGHT+STONE Site Name _____ Cooler unpacked by: M. Koch

Cooler Received on 4-11-24 Opened on 4-12-24

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours. Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt [N] See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	*Sufficient quantity received to perform indicated analyses?*	(Yes) No
12	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC329089
14	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen. _____

4/12/2024

Login Container Summary Report

240-202726

5/16/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F A4-20240410-01	240 202726-A-1	Plastic 250ml - unpreserved				
9631 F-A4 20240410-01	240-202726-A 1 MS	Plastic 250ml - unpreserved				
9631-F A4-20240410-01	240-202726-A-1 MSD	Plastic 250ml unpreserved				
9631 F-A4-20240410-01	240-202726-B-1	Plastic 250ml - unpreserved				
9631-F A4-20240410-01	240-202726-B 1 MS	Plastic 250ml unpreserved				
9631 F-A4-20240410-01	240-202726-B-1 MSD	Plastic 250ml - unpreserved				
9631-F-A4-20240410-01	240-202726-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-C-1 MSD	Plastic 500ml with Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-D-1	Plastic 1 liter - Nitric Acid	<2			
9631 F-A4-20240410-01	240-202726-D-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F A4-20240410-01	240-202726-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-E-1	Plastic 1 liter Nitric Acid	<2			
9631 F-A4 20240410-01	240 202726 E-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-E-1 MSD	Plastic 1 liter Nitric Acid	<2			
DUP-001 F-A4-20240410-01	240-202726 A 2	Plastic 250ml - unpreserved				
DUP-001-F A4-20240410-01	240 202726-B-2	Plastic 250ml - unpreserved				
DUP-001 F-A4-20240410-01	240-202726-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A4 20240410-01	240-202726-D-2	Plastic 1 liter Nitric Acid	<2			
DUP-001-F-A4-20240410-01	240-202726 E-2	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-A4 20240 410-01	240-202726-A 3	Plastic 250ml unpreserved				
FIELDBLANK-001-F-A4-20240 410-01	240-202726-B-3	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A4-20240 410-01	240-202726-C-3	Plastic 500ml - with Nitric Acid	<2			
FIELDBLANK-001-F-A4 20240 410-01	240-202726-D-3	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001 F-A4-20240 410-01	240 202726-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-2024410-01	240-202726 A-4	Plastic 250ml - unpreserved				
EB-001 F A4-2024410-01	240-202726-B-4	Plastic 250ml unpreserved				
EB-001-F A4-2024410-01	240-202726-C-4	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A4-2024410-01	240 202726-D-4	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
EB-001 F-A4-2024410-01	240-202726-E-4	Plastic 1 liter Nitric Acid	<2			

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 200

eurofins Environment Testing America

Client Information	Sampler: H. Luckey dbo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9631-F-A4-20240410-01	4-10-24	1402	G	Water	N		1	1	1	2		
9631-F-A4-20240410-MS-01	"	1402	G	Water	N	Y	1	1	1	2		
9631-F-A4-20240410-MSD-01	"	1402	G	Water	N	Y	1	1	1	2		
Dup-001-F-A4-20240410-01	"	—	G	Water	N		1	1	1	2		
FieldBlank-001-F-A4-20240410-01	"	1445	G	Water	N		1	1	1	2		
EB-001-F-A4-20240410-01	"	1700	G	W	N		1	1	1	2		

240-202726 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		4-11-24/0845	KEMRON	Ashley Deal	4.11.24 1:05	EJA
2	Ashley Deal	4.11.24 1700	EJA	L. Yoder	4-12-24 800	Ellen
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client L&H + Stone Site Name _____ Cooler unpacked by: M. Koch
Cooler Received on 4-11-24 Opened on 4-12-24
FedEx 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____
Receipt After-hours. Drop-off Date/Time _____ Storage Location _____
Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____
COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt [N] See Multiple Cooler Form
IR GUN # _____ (CF _____ °C) Observed Cooler Temp _____ °C Corrected Cooler Temp. _____ °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC329089
14	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____
_____
_____
_____

19 SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory
Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen _____

4/12/2024

Login Container Summary Report

240-202726

5/16/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A4-20240410-01	240-202726-A-1	Plastic 250ml - unpreserved				
9631-F-A4 20240410-01	240-202726-A-1 MS	Plastic 250ml unpreserved				
9631 F A4-20240410-01	240-202726-A 1 MSD	Plastic 250ml - unpreserved				
9631-F-A4-20240410-01	240-202726-B-1	Plastic 250ml unpreserved				
9631-F-A4-20240410-01	240-202726-B-1 MS	Plastic 250ml - unpreserved				
9631-F-A4-20240410-01	240-202726-B-1 MSD	Plastic 250ml - unpreserved				
9631-F-A4-20240410-01	240-202726-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F A4-20240410-01	240 202726-C-1 MS	Plastic 500ml with Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
9631 F A4-20240410-01	240-202726 D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240410-01	240 202726-D-1 MS	Plastic 1 liter Nitric Acid	<2			
9631 F-A4-20240410-01	240-202726-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726 E-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4 20240410-01	240-202726-E-1 MS	Plastic 1 liter Nitric Acid	<2			
9631-F A4-20240410-01	240-202726-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4 20240410-01	240 202726-A-2	Plastic 250ml - unpreserved				
DUP-001-F A4-20240410-01	240-202726-B-2	Plastic 250ml unpreserved				
DUP-001 F-A4 20240410-01	240-202726-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F A4-20240410 01	240-202726-D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001 F-A4-20240410-01	240-202726 E-2	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F A4-20240 410-01	240-202726-A-3	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A4 20240 410-01	240-202726 B-3	Plastic 250ml unpreserved				
FIELDBLANK-001-F-A4-20240 410-01	240 202726-C-3	Plastic 500ml with Nitric Acid	<2			
FIELDBLANK-001 F-A4-20240 410-01	240-202726-D-3	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F A4-20240 410-01	240-202726-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001 F-A4-2024410-01	240-202726-A-4	Plastic 250ml - unpreserved				
EB-001-F-A4 2024410-01	240-202726-B-4	Plastic 250ml unpreserved				
EB-001-F-A4-2024410-01	240-202726-C-4	Plastic 500ml - with Nitric Acid	<2			
EB-001 F A4-2024410-01	240-202726 D-4	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
EB-001-F-A4-2024410-01	240-202726-E-4	Plastic 1 liter - Nitric Acid	<2			

Login # _____

Eurofins : Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
2 EC Client Box Other	IR GUN #: 18	4.4	4.4	2 Wet Ice Blue Ice Dry Ice Water None
2 EC Client Box Other	IR GUN #: 18	1.2	1.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 200

eurofins Environment Testing America

Client Information	Sampler: H. Luckeydoo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9631-F-A4-20240410-01	4-10-24	1402	G	Water	N		1	1	1	2		
9631-F-A4-20240410-MS-01	"	1402	G	Water	N	Y	1	1	1	2		
9631-F-A4-20240410-MSD-01	"	1402	G	Water	N	Y	1	1	1	2		
Dup-001-F-A4-20240410-01	"	—	G	Water	N		1	1	1	2		
FieldBlank-001-F-A4-20240410-01	"	1445	G	Water	N		1	1	1	2		
EB-001-F-A4-20240410-01	"	1700	G	W	N		1	1	1	2		

240-202726 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		4-11-24/0845	KEMRON	Ashley Deal	4.11.24 1:05	ETA
2	Ashley Deal	4.11.24 1700	ETA	[illegible]	4-12-24 800	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client LIGHT+STONE Site Name _____ Cooler unpacked by: M. Koch
Cooler Received on 4-11-24 Opened on 4-12-24
FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____
Receipt After-hours. Drop-off Date/Time _____ Storage Location _____
Eurofins Cooler # 6 Foam Box Client Cooler Box Other _____
Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____
COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt [N] See Multiple Cooler Form
IR GUN # _____ (CF_____°C) Observed Cooler Temp _____°C Corrected Cooler Temp _____°C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	(Yes) No
	Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N) # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13 17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC329089
14	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving.
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by

_____
_____
_____
_____

19 SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired
Sample(s) _____ were received in a broken container
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory
Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation Date/Time VOAs Frozen _____

Login # _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
2 EC Client Box Other	IR GUN #: 18	4.4	4.4	(Wet Ice) Blue Ice Dry Ice Water None
2 EC Client Box Other	IR GUN #: 18	1.2	1.2	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

4/12/2024

Login Container Summary Report

240-202726

5/16/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631 F-A4 20240410-01	240-202726-A-1	Plastic 250ml - unpreserved				
9631-F A4 20240410-01	240-202726 A 1 MS	Plastic 250ml - unpreserved				
9631-F-A4 20240410-01	240-202726-A-1 MSD	Plastic 250ml unpreserved				
9631 F A4 20240410-01	240 202726-B 1	Plastic 250ml unpreserved				
9631-F-A4-20240410-01	240 202726-B-1 MS	Plastic 250ml - unpreserved				
9631-F A4 20240410-01	240-202726-B-1 MSD	Plastic 250ml unpreserved				
9631-F-A4-20240410-01	240-202726-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F A4-20240410-01	240-202726-C-1 MS	Plastic 500ml with Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
9631 F A4 20240410-01	240 202726-D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-D-1 MS	Plastic 1 liter Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240410-01	240-202726 E-1	Plastic 1 liter Nitric Acid	<2			
9631-F-A4-20240410-01	240 202726 E-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4 20240410-01	240-202726-E-1 MSD	Plastic 1 liter Nitric Acid	<2			
DUP-001-F-A4 20240410-01	240-202726 A-2	Plastic 250ml unpreserved				
DUP-001 F A4 20240410-01	240-202726 B-2	Plastic 250ml unpreserved				
DUP-001-F-A4-20240410-01	240 202726-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001 F A4-20240410 01	240-202726 D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F A4-20240410-01	240-202726 E-2	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001 F A4 20240 410-01	240 202726 A-3	Plastic 250ml unpreserved				
FIELDBLANK-001 F-A4-20240 410-01	240-202726-B 3	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A4-20240 410-01	240-202726-C-3	Plastic 500ml with Nitric Acid	<2			
FIELDBLANK-001 F A4-20240 410-01	240 202726-D-3	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-A4-20240 410-01	240-202726 E-3	Plastic 1 liter Nitric Acid	<2			
EB-001 F A4-2024410-01	240-202726 A-4	Plastic 250ml unpreserved				
EB-001 F A4 2024410-01	240-202726-B-4	Plastic 250ml - unpreserved				
EB-001 F A4 2024410-01	240-202726 C-4	Plastic 500ml with Nitric Acid	<2			
EB-001 F-A4-2024410-01	240 202726 D-4	Plastic 1 liter Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
EB-001 F A4 2024410-01	240-202726 E-4	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-183049.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-202726-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 4/25/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested: Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
9631-F-A4-20240410-01 (240-202726-1)	4/10/24	14:02 Eastern		Water			X	2	
9631-F-A4-20240410-01 (240-202726-1MS)	4/10/24	14:02 Eastern	MS	Water			X	2	
9631-F-A4-20240410-01 (240-202726-1MSD)	4/10/24	14:02 Eastern	MSD	Water			X	2	
DUP-001-F-A4-20240410-01 (240-202726-2)	4/10/24	Eastern		Water			X	2	
FIELDBLANK-001-F-A4-20240410-01 (240-202726-3)	4/10/24	14:45 Eastern		Water			X	2	
EB-001-F-A4-2024410-01 (240-202726-4)	4/10/24	17:00 Eastern		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	4/12/24 1115	ETNC	Sierra Worthington	APR 15 2024 0810	ETNC
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-202726-1

Login Number: 202726
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 04/15/24 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Federal CCR Wells App IV

JOB NUMBER

240-202901-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-202901-1 Eurofins Cleveland

Job Narrative
240-202901-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/17/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.7°C, 3.0°C, 3.4°C and 12.7°C.

Metals
Method 6020B - Total Recoverable: The continuing calibration verification (CCV) associated with batch 240-610163 recovered above the upper control limit for beryllium. The samples associated with this CCV were less than the reporting limit for the affected analyte; therefore, the data have been reported. The associated samples are impacted: 2022-05-F-A4-20240411-01 (240-202901-1), 2022-04-F-A4-20240411-01 (240-202901-2), 2022-03-F-A4-20240412-01 (240-202901-3), 2022-14-F-A4-20240412-01 (240-202901-4), 2022-06-F-A4-20240412-01 (240-202901-5), 2022-13-F-A4-20240415-01 (240-202901-7) and (240-202890-D-1-A).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2022-03-F-A4-20240412-01 (240-202901-3) and 2022-14-F-A4-20240412-01 (240-202901-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202901-1	2022-05-F-A4-20240411-01	Water	04/11/24 12:54	04/17/24 08:00
240-202901-2	2022-04-F-A4-20240411-01	Water	04/11/24 13:41	04/17/24 08:00
240-202901-3	2022-03-F-A4-20240412-01	Water	04/12/24 11:55	04/17/24 08:00
240-202901-4	2022-14-F-A4-20240412-01	Water	04/12/24 13:26	04/17/24 08:00
240-202901-5	2022-06-F-A4-20240412-01	Water	04/12/24 14:42	04/17/24 08:00
240-202901-6	2022-12-F-A4-20240415-01	Water	04/15/24 10:50	04/17/24 08:00
240-202901-7	2022-13-F-A4-20240415-01	Water	04/15/24 11:54	04/17/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Client Sample ID: 2022-05-F-A4-20240411-01
Lab Sample ID: 240-202901-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.9		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	810		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	29000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.4	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.49	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.51	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	42		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	9200		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	63		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3200		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.0	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1500000		5000	1600	ug/L	5		6020B	Total Recoverable
Thallium	0.58	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	2.0		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-04-F-A4-20240411-01
Lab Sample ID: 240-202901-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	100		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.58	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.58	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	24		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	36000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	86000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.25	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 2022-04-F-A4-20240411-01 (Continued) — Lab Sample ID: 240-202901-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.12		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-03-F-A4-20240412-01 — Lab Sample ID: 240-202901-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	350		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	380000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.7		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	550		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	130000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	140		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	20000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	4.5	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	7600000		20000	6600	ug/L	20		6020B	Total Recoverable
Thallium	0.20	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: 2022-14-F-A4-20240412-01 — Lab Sample ID: 240-202901-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.83	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	1700		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	300000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.1	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.96	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	140		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	82000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	19		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5300000		10000	3300	ug/L	10		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-14-F-A4-20240412-01 (Continued) — Lab Sample ID: 240-202901-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: 2022-06-F-A4-20240412-01 — Lab Sample ID: 240-202901-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	320		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	61000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.4		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	0.56	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	12		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	8.5		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	210000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.90		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-12-F-A4-20240415-01 — Lab Sample ID: 240-202901-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	15		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	90000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	20		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.14		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-13-F-A4-20240415-01 — Lab Sample ID: 240-202901-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 2022-13-F-A4-20240415-01 (Continued)
Lab Sample ID: 240-202901-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	330		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	18000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.22	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	29		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4700		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	83		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1300000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	5.5		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	2.0		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-05-F-A4-20240411-01

Date Collected: 04/11/24 12:54
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:33	1
Arsenic	**5.9**		5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:33	1
Barium	**810**		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:33	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:33	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:33	1
Calcium	**29000**		1000	250	ug/L		04/17/24 14:00	04/18/24 18:33	1
Chromium	**1.4**	**J**	5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:33	1
Cobalt	**0.49**	**J**	1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:33	1
Lead	**0.51**	**J**	1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:33	1
Lithium	**42**		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:33	1
Magnesium	**9200**		1000	61	ug/L		04/17/24 14:00	04/18/24 18:33	1
Molybdenum	**63**		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:33	1
Potassium	**3200**		1000	220	ug/L		04/17/24 14:00	04/18/24 18:33	1
Selenium	**1.0**	**J**	5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:33	1
Sodium	**1500000**		5000	1600	ug/L		04/17/24 14:00	04/19/24 15:01	5
Thallium	**0.58**	**J**	1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**290**		5.0	2.6	mg/L			04/24/24 01:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**290**		5.0	2.6	mg/L			04/24/24 01:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/24 01:40	1
Fluoride (EPA 300.0-1993 R2.1)	**2.0**		0.25	0.12	mg/L			04/30/24 07:43	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.604**		0.205	0.212	1.00	0.216	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.2*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.32**		0.452	0.468	1.00	0.542	pCi/L	04/22/24 09:56	05/16/24 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.2*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*
Y Carrier	*79.3*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-05-F-A4-20240411-01
Date Collected: 04/11/24 12:54
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.93		0.496	0.514	5.00	0.542	pCi/L		05/20/24 15:02	1

Client Sample ID: 2022-04-F-A4-20240411-01
Date Collected: 04/11/24 13:41
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-2
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:35	1
Arsenic	**1.1**	**J**	5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:35	1
Barium	**100**		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:35	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:35	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:35	1
Calcium	**120000**		1000	250	ug/L		04/17/24 14:00	04/18/24 18:35	1
Chromium	**1.8**	**J**	5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:35	1
Cobalt	**0.58**	**J**	1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:35	1
Lead	**0.58**	**J**	1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:35	1
Lithium	**24**		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:35	1
Magnesium	**36000**		1000	61	ug/L		04/17/24 14:00	04/18/24 18:35	1
Molybdenum	**1.2**	**J**	5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:35	1
Potassium	**4000**		1000	220	ug/L		04/17/24 14:00	04/18/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:35	1
Sodium	**86000**		1000	330	ug/L		04/17/24 14:00	04/18/24 18:35	1
Thallium	**0.25**	**J**	1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**510**		5.0	2.6	mg/L			04/24/24 01:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**510**		5.0	2.6	mg/L			04/24/24 01:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/24 01:46	1
Fluoride (EPA 300.0-1993 R2.1)	**0.12**		0.050	0.024	mg/L			04/30/24 06:42	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.118	U	0.119	0.120	1.00	0.188	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.255	U	0.350	0.351	1.00	0.587	pCi/L	04/22/24 09:56	05/16/24 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*
Y Carrier	*73.6*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-04-F-A4-20240411-01
Date Collected: 04/11/24 13:41
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.373	U	0.370	0.371	5.00	0.587	pCi/L		05/20/24 15:02	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-03-F-A4-20240412-01

Date Collected: 04/12/24 11:55
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-3

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:38	1
Arsenic	**2.1**	**J**	5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:38	1
Barium	**350**		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:38	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:38	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:38	1
Calcium	**380000**		1000	250	ug/L		04/17/24 14:00	04/18/24 18:38	1
Chromium	ND		5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:38	1
Cobalt	**1.7**		1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:38	1
Lead	ND		1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:38	1
Lithium	**550**		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:38	1
Magnesium	**130000**		1000	61	ug/L		04/17/24 14:00	04/18/24 18:38	1
Molybdenum	**140**		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:38	1
Potassium	**20000**		1000	220	ug/L		04/17/24 14:00	04/18/24 18:38	1
Selenium	**4.5**	**J**	5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:38	1
Sodium	**7600000**		20000	6600	ug/L		04/17/24 14:00	04/19/24 15:04	20
Thallium	**0.20**	**J**	1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:38	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**240**		5.0	2.6	mg/L			04/24/24 01:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**240**		5.0	2.6	mg/L			04/24/24 01:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/24 01:52	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			04/30/24 08:03	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.41**		0.276	0.304	1.00	0.175	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.79**		0.480	0.508	1.00	0.521	pCi/L	04/22/24 09:56	05/16/24 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*
Y Carrier	*81.5*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-03-F-A4-20240412-01
Date Collected: 04/12/24 11:55
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-3
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.20		0.554	0.592	5.00	0.521	pCi/L		05/20/24 15:02	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-14-F-A4-20240412-01

Date Collected: 04/12/24 13:26
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-4

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.83	J	2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:40	1
Arsenic	1.4	J	5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:40	1
Barium	1700		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:40	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:40	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:40	1
Calcium	300000		1000	250	ug/L		04/17/24 14:00	04/18/24 18:40	1
Chromium	4.1	J	5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:40	1
Cobalt	2.6		1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:40	1
Lead	0.96	J	1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:40	1
Lithium	140		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:40	1
Magnesium	82000		1000	61	ug/L		04/17/24 14:00	04/18/24 18:40	1
Molybdenum	19		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:40	1
Potassium	9400		1000	220	ug/L		04/17/24 14:00	04/18/24 18:40	1
Selenium	ND		5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:40	1
Sodium	5300000		10000	3300	ug/L		04/17/24 14:00	04/19/24 15:06	10
Thallium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			04/24/24 02:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			04/24/24 02:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/24 02:09	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			04/30/24 08:23	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.09		0.327	0.378	1.00	0.188	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.36		0.488	0.534	1.00	0.434	pCi/L	04/22/24 09:56	05/16/24 12:03	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*
Y Carrier	*83.7*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:03*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-14-F-A4-20240412-01
Date Collected: 04/12/24 13:26
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-4
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.45		0.587	0.654	5.00	0.434	pCi/L		05/20/24 15:02	1

Client Sample ID: 2022-06-F-A4-20240412-01
Date Collected: 04/12/24 14:42
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-5
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:43	1
Arsenic	**1.4**	**J**	5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:43	1
Barium	**320**		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:43	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:43	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:43	1
Calcium	**61000**		1000	250	ug/L		04/17/24 14:00	04/18/24 18:43	1
Chromium	**1.6**	**J**	5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:43	1
Cobalt	**1.4**		1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:43	1
Lead	**0.56**	**J**	1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:43	1
Lithium	**12**		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:43	1
Magnesium	**13000**		1000	61	ug/L		04/17/24 14:00	04/18/24 18:43	1
Molybdenum	**8.5**		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:43	1
Potassium	**2100**		1000	220	ug/L		04/17/24 14:00	04/18/24 18:43	1
Selenium	ND		5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:43	1
Sodium	**210000**		1000	330	ug/L		04/17/24 14:00	04/18/24 18:43	1
Thallium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:43	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**510**		5.0	2.6	mg/L			04/24/24 02:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**510**		5.0	2.6	mg/L			04/24/24 02:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/24 02:20	1
Fluoride (EPA 300.0-1993 R2.1)	**0.90**		0.050	0.024	mg/L			04/30/24 08:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.677**		0.246	0.253	1.00	0.245	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.4*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.570	U	0.398	0.401	1.00	0.589	pCi/L	04/22/24 09:56	05/16/24 12:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.4*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:04*	*1*
Y Carrier	*86.7*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:04*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-06-F-A4-20240412-01
Date Collected: 04/12/24 14:42
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-5
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.25		0.468	0.474	5.00	0.589	pCi/L		05/20/24 15:02	1

Client Sample ID: 2022-12-F-A4-20240415-01

Date Collected: 04/15/24 10:50
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-6

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:46	1
Arsenic	ND		5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:46	1
Barium	**15**		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:46	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:46	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:46	1
Calcium	**90000**		1000	250	ug/L		04/17/24 14:00	04/18/24 18:46	1
Chromium	ND		5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:46	1
Cobalt	ND		1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:46	1
Lead	ND		1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:46	1
Lithium	**20**		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:46	1
Magnesium	**25000**		1000	61	ug/L		04/17/24 14:00	04/18/24 18:46	1
Molybdenum	ND		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:46	1
Potassium	**3000**		1000	220	ug/L		04/17/24 14:00	04/18/24 18:46	1
Selenium	ND		5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:46	1
Sodium	**110000**		1000	330	ug/L		04/17/24 14:00	04/18/24 18:46	1
Thallium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**280**		5.0	2.6	mg/L			04/24/24 02:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**280**		5.0	2.6	mg/L			04/24/24 02:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/24/24 02:28	1
Fluoride (EPA 300.0-1993 R2.1)	**0.14**		0.050	0.024	mg/L			04/30/24 09:03	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.142	U	0.118	0.119	1.00	0.173	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.2*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0381	U	0.273	0.273	1.00	0.503	pCi/L	04/22/24 09:56	05/16/24 12:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.2*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:04*	*1*
Y Carrier	*85.6*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:04*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-12-F-A4-20240415-01
Date Collected: 04/15/24 10:50
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-6
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.180	U	0.297	0.298	5.00	0.503	pCi/L		05/20/24 15:02	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-13-F-A4-20240415-01

Date Collected: 04/15/24 11:54
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-7

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:53	1
Arsenic	**2.0**	**J**	5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:53	1
Barium	**330**		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:53	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:53	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:53	1
Calcium	**18000**		1000	250	ug/L		04/17/24 14:00	04/18/24 18:53	1
Chromium	ND		5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:53	1
Cobalt	**0.22**	**J**	1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:53	1
Lead	ND		1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:53	1
Lithium	**29**		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:53	1
Magnesium	**4700**		1000	61	ug/L		04/17/24 14:00	04/18/24 18:53	1
Molybdenum	**83**		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:53	1
Potassium	**2700**		1000	220	ug/L		04/17/24 14:00	04/18/24 18:53	1
Selenium	ND		5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:53	1
Sodium	**1300000**		5000	1600	ug/L		04/17/24 14:00	04/19/24 15:09	5
Thallium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/19/24 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**170**		5.0	2.6	mg/L			04/24/24 02:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**170**		5.0	2.6	mg/L			04/24/24 02:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	**5.5**		5.0	2.6	mg/L			04/24/24 02:34	1
Fluoride (EPA 300.0-1993 R2.1)	**2.0**		0.25	0.12	mg/L			04/30/24 10:04	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.460**		0.184	0.189	1.00	0.206	pCi/L	04/22/24 09:47	05/18/24 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.879**		0.407	0.415	1.00	0.557	pCi/L	04/22/24 09:56	05/16/24 12:04	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:04*	*1*
Y Carrier	*84.5*		*30 - 110*	*04/22/24 09:56*	*05/16/24 12:04*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-13-F-A4-20240415-01
Date Collected: 04/15/24 11:54
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202901-7
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.34		0.447	0.456	5.00	0.557	pCi/L		05/20/24 15:02	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-202901-1	2022-05-F-A4-20240411-01	94.2
240-202901-2	2022-04-F-A4-20240411-01	97.5
240-202901-3	2022-03-F-A4-20240412-01	98.0
240-202901-4	2022-14-F-A4-20240412-01	105
240-202901-5	2022-06-F-A4-20240412-01	93.4
240-202901-6	2022-12-F-A4-20240415-01	94.2
240-202901-7	2022-13-F-A4-20240415-01	95.2
LCS 160-658091/2-A	Lab Control Sample	86.8
MB 160-658091/1-A	Method Blank	97.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-202901-1	2022-05-F-A4-20240411-01	94.2	79.3
240-202901-2	2022-04-F-A4-20240411-01	97.5	73.6
240-202901-3	2022-03-F-A4-20240412-01	98.0	81.5
240-202901-4	2022-14-F-A4-20240412-01	105	83.7
240-202901-5	2022-06-F-A4-20240412-01	93.4	86.7
240-202901-6	2022-12-F-A4-20240415-01	94.2	85.6
240-202901-7	2022-13-F-A4-20240415-01	95.2	84.5
LCS 160-658093/2-A	Lab Control Sample	86.8	82.6
MB 160-658093/1-A	Method Blank	97.2	85.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-609936/1-A
Matrix: Water
Analysis Batch: 610163

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609936

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		04/17/24 14:00	04/18/24 18:11	1
Arsenic	ND		5.0	0.75	ug/L		04/17/24 14:00	04/18/24 18:11	1
Barium	ND		5.0	2.2	ug/L		04/17/24 14:00	04/18/24 18:11	1
Beryllium	ND	^+	1.0	0.62	ug/L		04/17/24 14:00	04/18/24 18:11	1
Cadmium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:11	1
Calcium	ND		1000	250	ug/L		04/17/24 14:00	04/18/24 18:11	1
Chromium	ND		5.0	1.2	ug/L		04/17/24 14:00	04/18/24 18:11	1
Cobalt	ND		1.0	0.19	ug/L		04/17/24 14:00	04/18/24 18:11	1
Lead	ND		1.0	0.45	ug/L		04/17/24 14:00	04/18/24 18:11	1
Lithium	ND		8.0	1.7	ug/L		04/17/24 14:00	04/18/24 18:11	1
Magnesium	ND		1000	61	ug/L		04/17/24 14:00	04/18/24 18:11	1
Molybdenum	ND		5.0	1.1	ug/L		04/17/24 14:00	04/18/24 18:11	1
Potassium	ND		1000	220	ug/L		04/17/24 14:00	04/18/24 18:11	1
Selenium	ND		5.0	0.89	ug/L		04/17/24 14:00	04/18/24 18:11	1
Sodium	ND		1000	330	ug/L		04/17/24 14:00	04/18/24 18:11	1
Thallium	ND		1.0	0.20	ug/L		04/17/24 14:00	04/18/24 18:11	1

Lab Sample ID: LCS 240-609936/3-A
Matrix: Water
Analysis Batch: 610163

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609936

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	95.1		ug/L		95	80 - 120
Arsenic	1000	901		ug/L		90	80 - 120
Barium	1000	971		ug/L		97	80 - 120
Beryllium	500	524	^+	ug/L		105	80 - 120
Cadmium	500	489		ug/L		98	80 - 120
Calcium	25000	24600		ug/L		98	80 - 120
Chromium	500	500		ug/L		100	80 - 120
Cobalt	500	465		ug/L		93	80 - 120
Lead	500	494		ug/L		99	80 - 120
Lithium	500	483		ug/L		97	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Molybdenum	500	468		ug/L		94	80 - 120
Potassium	25000	23800		ug/L		95	80 - 120
Selenium	1000	921		ug/L		92	80 - 120
Sodium	25000	24600		ug/L		98	80 - 120
Thallium	1000	970		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-609937/1-A
Matrix: Water
Analysis Batch: 610112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609937

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		04/17/24 14:00	04/18/24 11:24	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-609937/2-A
Matrix: Water
Analysis Batch: 610112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.39		ug/L		108	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-610723/30
Matrix: Water
Analysis Batch: 610723

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/23/24 23:50	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/23/24 23:50	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/23/24 23:50	1

Lab Sample ID: MB 240-610723/4
Matrix: Water
Analysis Batch: 610723

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/23/24 21:42	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/23/24 21:42	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/23/24 21:42	1

Lab Sample ID: MB 240-610723/56
Matrix: Water
Analysis Batch: 610723

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/24/24 02:03	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/24 02:03	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/24/24 02:03	1

Lab Sample ID: LCS 240-610723/29
Matrix: Water
Analysis Batch: 610723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	83.3		mg/L		103	86 - 123

Lab Sample ID: LCS 240-610723/55
Matrix: Water
Analysis Batch: 610723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	84.5		mg/L		105	86 - 123

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-202901-4 DU
Matrix: Water
Analysis Batch: 610723

Client Sample ID: 2022-14-F-A4-20240412-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	170		167		mg/L		0.4	20
Bicarbonate Alkalinity as CaCO3	170		167		mg/L		0.4	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-611253/3
Matrix: Water
Analysis Batch: 611253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			04/30/24 06:02	1

Lab Sample ID: LCS 240-611253/4
Matrix: Water
Analysis Batch: 611253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.60		mg/L		104	90 - 110

Lab Sample ID: 240-202901-2 MS
Matrix: Water
Analysis Batch: 611253

Client Sample ID: 2022-04-F-A4-20240411-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.12		2.50	2.76		mg/L		106	80 - 120

Lab Sample ID: 240-202901-2 MSD
Matrix: Water
Analysis Batch: 611253

Client Sample ID: 2022-04-F-A4-20240411-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.12		2.50	2.82		mg/L		108	80 - 120	2	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-658091/1-A
Matrix: Water
Analysis Batch: 662267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658091

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03460	U	0.0795	0.0796	1.00	0.149	pCi/L	04/22/24 09:47	05/18/24 09:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/22/24 09:47*	*05/18/24 09:34*	*1*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-658091/2-A
Matrix: Water
Analysis Batch: 662267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658091

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	11.10		1.28	1.00	0.143	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*86.8*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-658093/1-A
Matrix: Water
Analysis Batch: 661878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658093

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1929	U	0.279	0.280	1.00	0.472	pCi/L	04/22/24 09:56	05/16/24 11:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/22/24 09:56*	*05/16/24 11:48*	*1*
Y Carrier	*85.6*		*30 - 110*	*04/22/24 09:56*	*05/16/24 11:48*	*1*

Lab Sample ID: LCS 160-658093/2-A
Matrix: Water
Analysis Batch: 661878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658093

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.94	10.49		1.42	1.00	0.556	pCi/L	117	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*86.8*		*30 - 110*
Y Carrier	*82.6*		*30 - 110*

Metals

Prep Batch: 609936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total Recoverable	Water	3005A	
240-202901-2	2022-04-F-A4-20240411-01	Total Recoverable	Water	3005A	
240-202901-3	2022-03-F-A4-20240412-01	Total Recoverable	Water	3005A	
240-202901-4	2022-14-F-A4-20240412-01	Total Recoverable	Water	3005A	
240-202901-5	2022-06-F-A4-20240412-01	Total Recoverable	Water	3005A	
240-202901-6	2022-12-F-A4-20240415-01	Total Recoverable	Water	3005A	
240-202901-7	2022-13-F-A4-20240415-01	Total Recoverable	Water	3005A	
MB 240-609936/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-609936/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 609937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total/NA	Water	7470A	
240-202901-2	2022-04-F-A4-20240411-01	Total/NA	Water	7470A	
240-202901-3	2022-03-F-A4-20240412-01	Total/NA	Water	7470A	
240-202901-4	2022-14-F-A4-20240412-01	Total/NA	Water	7470A	
240-202901-5	2022-06-F-A4-20240412-01	Total/NA	Water	7470A	
240-202901-6	2022-12-F-A4-20240415-01	Total/NA	Water	7470A	
240-202901-7	2022-13-F-A4-20240415-01	Total/NA	Water	7470A	
MB 240-609937/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-609937/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 610112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total/NA	Water	7470A	609937
240-202901-2	2022-04-F-A4-20240411-01	Total/NA	Water	7470A	609937
240-202901-3	2022-03-F-A4-20240412-01	Total/NA	Water	7470A	609937
240-202901-4	2022-14-F-A4-20240412-01	Total/NA	Water	7470A	609937
240-202901-5	2022-06-F-A4-20240412-01	Total/NA	Water	7470A	609937
240-202901-6	2022-12-F-A4-20240415-01	Total/NA	Water	7470A	609937
MB 240-609937/1-A	Method Blank	Total/NA	Water	7470A	609937
LCS 240-609937/2-A	Lab Control Sample	Total/NA	Water	7470A	609937

Analysis Batch: 610163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total Recoverable	Water	6020B	609936
240-202901-2	2022-04-F-A4-20240411-01	Total Recoverable	Water	6020B	609936
240-202901-3	2022-03-F-A4-20240412-01	Total Recoverable	Water	6020B	609936
240-202901-4	2022-14-F-A4-20240412-01	Total Recoverable	Water	6020B	609936
240-202901-5	2022-06-F-A4-20240412-01	Total Recoverable	Water	6020B	609936
240-202901-6	2022-12-F-A4-20240415-01	Total Recoverable	Water	6020B	609936
240-202901-7	2022-13-F-A4-20240415-01	Total Recoverable	Water	6020B	609936
MB 240-609936/1-A	Method Blank	Total Recoverable	Water	6020B	609936
LCS 240-609936/3-A	Lab Control Sample	Total Recoverable	Water	6020B	609936

Analysis Batch: 610275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-7	2022-13-F-A4-20240415-01	Total/NA	Water	7470A	609937

Metals

Analysis Batch: 610316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total Recoverable	Water	6020B	609936
240-202901-3	2022-03-F-A4-20240412-01	Total Recoverable	Water	6020B	609936
240-202901-4	2022-14-F-A4-20240412-01	Total Recoverable	Water	6020B	609936
240-202901-7	2022-13-F-A4-20240415-01	Total Recoverable	Water	6020B	609936

General Chemistry

Analysis Batch: 610723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total/NA	Water	2320B-1997	
240-202901-2	2022-04-F-A4-20240411-01	Total/NA	Water	2320B-1997	
240-202901-3	2022-03-F-A4-20240412-01	Total/NA	Water	2320B-1997	
240-202901-4	2022-14-F-A4-20240412-01	Total/NA	Water	2320B-1997	
240-202901-5	2022-06-F-A4-20240412-01	Total/NA	Water	2320B-1997	
240-202901-6	2022-12-F-A4-20240415-01	Total/NA	Water	2320B-1997	
240-202901-7	2022-13-F-A4-20240415-01	Total/NA	Water	2320B-1997	
MB 240-610723/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-610723/4	Method Blank	Total/NA	Water	2320B-1997	
MB 240-610723/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-610723/29	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-610723/55	Lab Control Sample	Total/NA	Water	2320B-1997	
240-202901-4 DU	2022-14-F-A4-20240412-01	Total/NA	Water	2320B-1997	

Analysis Batch: 611253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-2	2022-04-F-A4-20240411-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-3	2022-03-F-A4-20240412-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-4	2022-14-F-A4-20240412-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-5	2022-06-F-A4-20240412-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-6	2022-12-F-A4-20240415-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-7	2022-13-F-A4-20240415-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-611253/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-611253/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-202901-2 MS	2022-04-F-A4-20240411-01	Total/NA	Water	300.0-1993 R2.1	
240-202901-2 MSD	2022-04-F-A4-20240411-01	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 658091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total/NA	Water	PrecSep-21	
240-202901-2	2022-04-F-A4-20240411-01	Total/NA	Water	PrecSep-21	
240-202901-3	2022-03-F-A4-20240412-01	Total/NA	Water	PrecSep-21	
240-202901-4	2022-14-F-A4-20240412-01	Total/NA	Water	PrecSep-21	
240-202901-5	2022-06-F-A4-20240412-01	Total/NA	Water	PrecSep-21	
240-202901-6	2022-12-F-A4-20240415-01	Total/NA	Water	PrecSep-21	
240-202901-7	2022-13-F-A4-20240415-01	Total/NA	Water	PrecSep-21	
MB 160-658091/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-658091/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Rad

Prep Batch: 658093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202901-1	2022-05-F-A4-20240411-01	Total/NA	Water	PrecSep_0	
240-202901-2	2022-04-F-A4-20240411-01	Total/NA	Water	PrecSep_0	
240-202901-3	2022-03-F-A4-20240412-01	Total/NA	Water	PrecSep_0	
240-202901-4	2022-14-F-A4-20240412-01	Total/NA	Water	PrecSep_0	
240-202901-5	2022-06-F-A4-20240412-01	Total/NA	Water	PrecSep_0	
240-202901-6	2022-12-F-A4-20240415-01	Total/NA	Water	PrecSep_0	
240-202901-7	2022-13-F-A4-20240415-01	Total/NA	Water	PrecSep_0	
MB 160-658093/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-658093/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Client Sample ID: 2022-05-F-A4-20240411-01
Lab Sample ID: 240-202901-1

Date Collected: 04/11/24 12:54
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:33
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		5	610316	AJC	EET CLE	04/19/24 15:01
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610112	S4FJ	EET CLE	04/18/24 11:42
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 01:40
Total/NA	Analysis	300.0-1993 R2.1		5	611253	JWW	EET CLE	04/30/24 07:43
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Client Sample ID: 2022-04-F-A4-20240411-01
Lab Sample ID: 240-202901-2

Date Collected: 04/11/24 13:41
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:35
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610112	S4FJ	EET CLE	04/18/24 11:44
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 01:46
Total/NA	Analysis	300.0-1993 R2.1		1	611253	JWW	EET CLE	04/30/24 06:42
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Client Sample ID: 2022-03-F-A4-20240412-01
Lab Sample ID: 240-202901-3

Date Collected: 04/12/24 11:55
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:38
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		20	610316	AJC	EET CLE	04/19/24 15:04
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610112	S4FJ	EET CLE	04/18/24 11:47
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 01:52
Total/NA	Analysis	300.0-1993 R2.1		50	611253	JWW	EET CLE	04/30/24 08:03

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App IV

Job ID: 240-202901-1

Client Sample ID: 2022-03-F-A4-20240412-01

Lab Sample ID: 240-202901-3

Date Collected: 04/12/24 11:55
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Client Sample ID: 2022-14-F-A4-20240412-01

Lab Sample ID: 240-202901-4

Date Collected: 04/12/24 13:26
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:40
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		10	610316	AJC	EET CLE	04/19/24 15:06
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610112	S4FJ	EET CLE	04/18/24 11:49
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 02:09
Total/NA	Analysis	300.0-1993 R2.1		50	611253	JWW	EET CLE	04/30/24 08:23
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:03
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Client Sample ID: 2022-06-F-A4-20240412-01

Lab Sample ID: 240-202901-5

Date Collected: 04/12/24 14:42
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:43
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610112	S4FJ	EET CLE	04/18/24 11:52
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 02:20
Total/NA	Analysis	300.0-1993 R2.1		1	611253	JWW	EET CLE	04/30/24 08:43
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Client Sample ID: 2022-12-F-A4-20240415-01
Lab Sample ID: 240-202901-6

Date Collected: 04/15/24 10:50
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:46
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610112	S4FJ	EET CLE	04/18/24 11:54
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 02:28
Total/NA	Analysis	300.0-1993 R2.1		1	611253	JWW	EET CLE	04/30/24 09:03
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Client Sample ID: 2022-13-F-A4-20240415-01
Lab Sample ID: 240-202901-7

Date Collected: 04/15/24 11:54
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 18:53
Total Recoverable	Prep	3005A			609936	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		5	610316	AJC	EET CLE	04/19/24 15:09
Total/NA	Prep	7470A			609937	BN	EET CLE	04/17/24 14:00
Total/NA	Analysis	7470A		1	610275	S4FJ	EET CLE	04/19/24 10:08
Total/NA	Analysis	2320B-1997		1	610723	JWW	EET CLE	04/24/24 02:34
Total/NA	Analysis	300.0-1993 R2.1		5	611253	JWW	EET CLE	04/30/24 10:04
Total/NA	Prep	PrecSep-21			658091	MLT	EET SL	04/22/24 09:47
Total/NA	Analysis	9315		1	662384	SCB	EET SL	05/18/24 09:42
Total/NA	Prep	PrecSep_0			658093	MLT	EET SL	04/22/24 09:56
Total/NA	Analysis	9320		1	661995	SCB	EET SL	05/16/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 15:02

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202901-1
Project/Site: Federal CCR Wells App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins Environment Testing America

Client Information	Sampler: H. Luckydoo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-05-F-A4-20240411-01	4-11-24	1354	G	Water	N		1	1	1	2		
2022-04-F-A4-20240411-01	4-11-24	1341	G	Water	N		1	1	1	2		
2022-03-F-A4-20240412-01	4-12-24	1155	G	Water	N		1	1	1	2		
2022-14-F-A4-20240412-01	4-12-24	1326	G	Water	N		1	1	1	2		
2022-06-F-A4-20240412-01	4-12-24	1442	G	Water	N		1	1	1	2		
2022-12-F-A4-20240415-01	4-15-24	1050	G	Water	N		1	1	1	2		
2022-13-F-A4-20240415-01	4-15-24	1154	G	Water	N		1	1	1	2		

240-202901 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Ryan Smith	4-16-24/1020	KEMRON	Ashley Deal	4.16.24 12:45	EJA
2	Ashley Deal	4.16.24 1200	EJA		4-17-24 800	EETX
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins - Cleveland Sample Receipt Form/Narrative — Login #: 202901
Barberton Facility

Client Lightstone — Site Name ____ — Cooler unpacked by: Danny Pyle

Cooler Received on 4-17-24 — Opened on 4-17-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time ____ Storage Location ____

Eurofins Cooler # EC — Foam Box Client Cooler Box Other ____

Packing material used. ~~Bubble Wrap~~ Foam Plastic Bag None Other ____

COOLANT Wet Ice Blue Ice Dry Ice Water (None)

1 Cooler temperature upon receipt — [X] See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp ____ °C Corrected Cooler Temp ____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(Y) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12 Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC329089
14. Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	(No) (NA)
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? ____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

19. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container
Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory
Time preserved ____ Preservative(s) added/Lot number(s) ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____

Login # 202901

5/20/2024

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 18	3.4	3.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	12.7	12.7	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	1.7	1.7	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	3.0	3.0	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

4/17/2024

Login Container Summary Report

240-202901

5/20/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A4-20240411-01	240-202901-A-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20240411-01	240-202901-B-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20240411-01	240-202901-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-A4-20240411-01	240-202901-D-1	Plastic 1 liter Nitric Acid	<2			
2022-05 F A4-20240411-01	240-202901-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-A4-20240411-01	240-202901-A-2	Plastic 250ml - unpreserved				
2022-04-F-A4 20240411-01	240-202901-B-2	Plastic 250ml - unpreserved				
2022-04-F-A4-20240411-01	240-202901-C-2	Plastic 500ml with Nitric Acid	<2			
2022-04-F-A4 20240411-01	240-202901-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-04 F-A4-20240411-01	240-202901-E-2	Plastic 1 liter Nitric Acid	<2			
2022-03-F-A4-20240412-01	240-202901-A-3	Plastic 250ml - unpreserved				
2022-03-F-A4-20240412-01	240-202901-B-3	Plastic 250ml - unpreserved				
2022-03-F A4-20240412-01	240 202901-C-3	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A4-20240412-01	240-202901-D-3	Plastic 1 liter - Nitric Acid	<2			
2022-03 F-A4-20240412-01	240-202901-E-3	Plastic 1 liter Nitric Acid	<2			
2022-14-F-A4-20240412-01	240-202901 A-4	Plastic 250ml - unpreserved				
2022-14-F-A4-20240412-01	240-202901-B-4	Plastic 250ml - unpreserved				
2022-14-F-A4 20240412-01	240-202901-C-4	Plastic 500ml - with Nitric Acid	<2			
2022-14 F-A4-20240412-01	240-202901-D-4	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4 20240412-01	240-202901-E-4	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-A4-20240412-01	240-202901 A-5	Plastic 250ml - unpreserved				
2022-06-F-A4-20240412-01	240-202901-B-5	Plastic 250ml - unpreserved				
2022-06-F A4-20240412-01	240-202901-C-5	Plastic 500ml - with Nitric Acid	<2			
2022-06-F A4-20240412-01	240-202901-D-5	Plastic 1 liter - Nitric Acid	<2			
2022-06-F A4-20240412-01	240-202901-E-5	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240415-01	240 202901-A-6	Plastic 250ml - unpreserved				
2022-12-F-A4-20240415-01	240-202901-B-6	Plastic 250ml - unpreserved				
2022-12-F-A4-20240415-01	240 202901-C-6	Plastic 500ml - with Nitric Acid	<2			
2022-12-F A4-20240415-01	240-202901 D-6	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240415-01	240-202901-E-6	Plastic 1 liter - Nitric Acid	<2			
2022-13 F A4-20240415-01	240-202901-A-7	Plastic 250ml unpreserved				
2022-13-F-A4 20240415-01	240-202901-B-7	Plastic 250ml - unpreserved				
2022-13-F-A4-20240415-01	240 202901-C-7	Plastic 500ml - with Nitric Acid	<2			
2022 13-F A4 20240415-01	240-202901-D-7	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4 20240415-01	240-202901 E-7	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-183233.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-202901-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/20/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-05-F-A4-20240411-01 (240-202901-1)	4/11/24	12:54 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-04-F-A4-20240411-01 (240-202901-2)	4/11/24	13:41 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-03-F-A4-20240412-01 (240-202901-3)	4/12/24	11:55 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-14-F-A4-20240412-01 (240-202901-4)	4/12/24	13:26 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-06-F-A4-20240412-01 (240-202901-5)	4/12/24	14:42 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-12-F-A4-20240415-01 (240-202901-6)	4/15/24	10:50 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet
2022-13-F-A4-20240415-01 (240-202901-7)	4/15/24	11:54 Eastern		Water			X	X	X	2	Recount of TAR after 21 day ingrowth if > action limit; save planchet

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		4/24 1455	EETNC			
	Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: APR 18 20240840	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

5/20/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-202901-1

Login Number: 202901
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 04/18/24 02:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 4/24/2024 8:53:27 PM

JOB DESCRIPTION

Federal CCR Wells App III

JOB NUMBER

240-202902-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-202902-1 — Eurofins Cleveland

Job Narrative
240-202902-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/17/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.7°C, 3.0°C, 3.4°C and 12.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2022-03-F-A3-20240412-01 (240-202902-3) and 2022-14-F-A3-20240412-01 (240-202902-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-202902-1	2022-05-F-A3-20240411-01	Water	04/11/24 12:54	04/17/24 08:00
240-202902-2	2022-04-F-A3-20240411-01	Water	04/11/24 13:41	04/17/24 08:00
240-202902-3	2022-03-F-A3-20240412-01	Water	04/12/24 13:55	04/17/24 08:00
240-202902-4	2022-14-F-A3-20240412-01	Water	04/12/24 13:26	04/17/24 08:00
240-202902-5	2022-06-F-A3-20240412-01	Water	04/12/24 14:42	04/17/24 08:00
240-202902-6	2022-12-F-A3-20240415-01	Water	04/15/24 10:50	04/17/24 08:00
240-202902-7	2022-13-F-A3-20240415-01	Water	04/15/24 11:54	04/17/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-05-F-A3-20240411-01 — Lab Sample ID: 240-202902-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Calcium	36000	F1	2000	510	ug/L	2		6020B	Total Recoverable
Magnesium	11000		2000	120	ug/L	2		6020B	Total Recoverable
Potassium	3500		2000	430	ug/L	2		6020B	Total Recoverable
Sodium	1600000		2000	660	ug/L	2		6020B	Total Recoverable
Total Alkalinity	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2400		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.6		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	110		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3900		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-04-F-A3-20240411-01 — Lab Sample ID: 240-202902-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	740		100	57	ug/L	1		6010D	Total Recoverable
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	31000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	97000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	33		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	89		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	610		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-03-F-A3-20240412-01 — Lab Sample ID: 240-202902-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Calcium	370000		10000	2500	ug/L	10		6020B	Total Recoverable
Magnesium	140000		10000	610	ug/L	10		6020B	Total Recoverable
Potassium	20000		10000	2200	ug/L	10		6020B	Total Recoverable
Sodium	7300000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	14000		500	64	mg/L	500		300.0	Total/NA
Sulfate	410		50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	22000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-14-F-A3-20240412-01 — Lab Sample ID: 240-202902-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Calcium	290000		10000	2500	ug/L	10		6020B	Total Recoverable
Magnesium	85000		10000	610	ug/L	10		6020B	Total Recoverable
Potassium	9800	J	10000	2200	ug/L	10		6020B	Total Recoverable
Sodium	5300000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	9700		50	6.4	mg/L	50		300.0	Total/NA
Sulfate	150		50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	15000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-06-F-A3-20240412-01 — Lab Sample ID: 240-202902-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	110		100	57	ug/L	1		6010D	Total Recoverable
Calcium	58000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	12000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	1900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	200000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	100		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.83		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	24		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	770		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-12-F-A3-20240415-01 — Lab Sample ID: 240-202902-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	72	J	100	57	ug/L	1		6010D	Total Recoverable
Calcium	90000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	260		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	930		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Client Sample ID: 2022-13-F-A3-20240415-01
Lab Sample ID: 240-202902-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	270		100	57	ug/L	1		6010D	Total Recoverable
Calcium	20000		2000	510	ug/L	2		6020B	Total Recoverable
Magnesium	5400		2000	120	ug/L	2		6020B	Total Recoverable
Potassium	3000		2000	430	ug/L	2		6020B	Total Recoverable
Sodium	1300000		2000	660	ug/L	2		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1800		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.7		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	6.2		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3200		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-05-F-A3-20240411-01
Date Collected: 04/11/24 12:54
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202902-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		04/17/24 14:00	04/18/24 07:50	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000	F1	2000	510	ug/L		04/17/24 14:00	04/18/24 19:35	2
Magnesium	11000		2000	120	ug/L		04/17/24 14:00	04/18/24 19:35	2
Potassium	3500		2000	430	ug/L		04/17/24 14:00	04/18/24 19:35	2
Sodium	1600000		2000	660	ug/L		04/17/24 14:00	04/18/24 19:35	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	290		5.0	2.6	mg/L			04/19/24 23:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	290		5.0	2.6	mg/L			04/19/24 23:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:06	1
Chloride (EPA 300.0)	2400		50	6.4	mg/L			04/23/24 20:46	50
Fluoride (EPA 300.0)	1.6		0.25	0.12	mg/L			04/23/24 20:24	5
Sulfate (EPA 300.0)	110		5.0	1.7	mg/L			04/23/24 20:24	5
Total Dissolved Solids (SM 2540C)	3900		50	39	mg/L			04/18/24 14:00	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-04-F-A3-20240411-01

Date Collected: 04/11/24 13:41
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202902-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	740		100	57	ug/L		04/17/24 14:00	04/18/24 08:29	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		1000	250	ug/L		04/17/24 14:00	04/18/24 19:52	1
Magnesium	31000		1000	61	ug/L		04/17/24 14:00	04/18/24 19:52	1
Potassium	3700		1000	220	ug/L		04/17/24 14:00	04/18/24 19:52	1
Sodium	97000		1000	330	ug/L		04/17/24 14:00	04/18/24 19:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			04/19/24 23:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			04/19/24 23:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:13	1
Chloride (EPA 300.0)	33		1.0	0.13	mg/L			04/23/24 21:07	1
Fluoride (EPA 300.0)	0.10		0.050	0.024	mg/L			04/23/24 21:07	1
Sulfate (EPA 300.0)	89		1.0	0.35	mg/L			04/23/24 21:07	1
Total Dissolved Solids (SM 2540C)	610		10	7.8	mg/L			04/18/24 14:00	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Client Sample ID: 2022-03-F-A3-20240412-01
Lab Sample ID: 240-202902-3
Date Collected: 04/12/24 13:55
Matrix: Water
Date Received: 04/17/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		04/17/24 14:00	04/18/24 08:33	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	370000		10000	2500	ug/L		04/17/24 14:00	04/18/24 19:55	10
Magnesium	140000		10000	610	ug/L		04/17/24 14:00	04/18/24 19:55	10
Potassium	20000		10000	2200	ug/L		04/17/24 14:00	04/18/24 19:55	10
Sodium	7300000		10000	3300	ug/L		04/17/24 14:00	04/18/24 19:55	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	240		5.0	2.6	mg/L			04/19/24 23:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	240		5.0	2.6	mg/L			04/19/24 23:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:19	1
Chloride (EPA 300.0)	14000		500	64	mg/L			04/23/24 22:56	500
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/23/24 22:34	50
Sulfate (EPA 300.0)	410		50	17	mg/L			04/23/24 22:34	50
Total Dissolved Solids (SM 2540C)	22000		1000	780	mg/L			04/19/24 09:51	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-14-F-A3-20240412-01

Lab Sample ID: 240-202902-4

Date Collected: 04/12/24 13:26

Matrix: Water

Date Received: 04/17/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		04/17/24 14:00	04/18/24 08:37	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	290000		10000	2500	ug/L		04/17/24 14:00	04/18/24 19:57	10
Magnesium	85000		10000	610	ug/L		04/17/24 14:00	04/18/24 19:57	10
Potassium	9800	J	10000	2200	ug/L		04/17/24 14:00	04/18/24 19:57	10
Sodium	5300000		10000	3300	ug/L		04/17/24 14:00	04/18/24 19:57	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			04/19/24 23:25	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			04/19/24 23:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:25	1
Chloride (EPA 300.0)	9700		50	6.4	mg/L			04/23/24 23:18	50
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			04/23/24 23:18	50
Sulfate (EPA 300.0)	150		50	17	mg/L			04/23/24 23:18	50
Total Dissolved Solids (SM 2540C)	15000		1000	780	mg/L			04/19/24 09:51	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-06-F-A3-20240412-01

Date Collected: 04/12/24 14:42
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202902-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	110		100	57	ug/L		04/17/24 14:00	04/18/24 08:42	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	58000		1000	250	ug/L		04/17/24 14:00	04/18/24 20:00	1
Magnesium	12000		1000	61	ug/L		04/17/24 14:00	04/18/24 20:00	1
Potassium	1900		1000	220	ug/L		04/17/24 14:00	04/18/24 20:00	1
Sodium	200000		1000	330	ug/L		04/17/24 14:00	04/18/24 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	520		5.0	2.6	mg/L			04/19/24 23:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	520		5.0	2.6	mg/L			04/19/24 23:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:30	1
Chloride (EPA 300.0)	100		1.0	0.13	mg/L			04/24/24 00:01	1
Fluoride (EPA 300.0)	0.83		0.050	0.024	mg/L			04/24/24 00:01	1
Sulfate (EPA 300.0)	24		1.0	0.35	mg/L			04/24/24 00:01	1
Total Dissolved Solids (SM 2540C)	770		10	7.8	mg/L			04/19/24 09:51	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-12-F-A3-20240415-01

Lab Sample ID: 240-202902-6

Date Collected: 04/15/24 10:50

Matrix: Water

Date Received: 04/17/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	72	J	100	57	ug/L		04/17/24 14:00	04/18/24 08:46	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	90000		1000	250	ug/L		04/17/24 14:00	04/18/24 20:02	1
Magnesium	25000		1000	61	ug/L		04/17/24 14:00	04/18/24 20:02	1
Potassium	2900		1000	220	ug/L		04/17/24 14:00	04/18/24 20:02	1
Sodium	110000		1000	330	ug/L		04/17/24 14:00	04/18/24 20:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			04/19/24 23:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			04/19/24 23:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:38	1
Chloride (EPA 300.0)	19		1.0	0.13	mg/L			04/24/24 00:45	1
Fluoride (EPA 300.0)	0.10		0.050	0.024	mg/L			04/24/24 00:45	1
Sulfate (EPA 300.0)	260		10	3.5	mg/L			04/24/24 01:06	10
Total Dissolved Solids (SM 2540C)	930		10	7.8	mg/L			04/19/24 09:51	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells App III

Job ID: 240-202902-1

Client Sample ID: 2022-13-F-A3-20240415-01

Date Collected: 04/15/24 11:54
Date Received: 04/17/24 08:00

Lab Sample ID: 240-202902-7

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	270		100	57	ug/L		04/17/24 14:00	04/18/24 08:50	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20000		2000	510	ug/L		04/17/24 14:00	04/18/24 20:05	2
Magnesium	5400		2000	120	ug/L		04/17/24 14:00	04/18/24 20:05	2
Potassium	3000		2000	430	ug/L		04/17/24 14:00	04/18/24 20:05	2
Sodium	1300000		2000	660	ug/L		04/17/24 14:00	04/18/24 20:05	2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			04/19/24 23:44	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			04/19/24 23:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			04/19/24 23:44	1
Chloride (EPA 300.0)	1800		25	3.2	mg/L			04/24/24 01:50	25
Fluoride (EPA 300.0)	1.7		0.25	0.12	mg/L			04/24/24 01:28	5
Sulfate (EPA 300.0)	6.2		5.0	1.7	mg/L			04/24/24 01:28	5
Total Dissolved Solids (SM 2540C)	3200		50	39	mg/L			04/19/24 09:51	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-609930/1-A
Matrix: Water
Analysis Batch: 610147

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		04/17/24 14:00	04/18/24 07:42	1

Lab Sample ID: LCS 240-609930/2-A
Matrix: Water
Analysis Batch: 610147

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1050		ug/L		105	80 - 120

Lab Sample ID: 240-202902-1 MS
Matrix: Water
Analysis Batch: 610147

Client Sample ID: 2022-05-F-A3-20240411-01
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	370		1000	1380		ug/L		101	75 - 125

Lab Sample ID: 240-202902-1 MSD
Matrix: Water
Analysis Batch: 610147

Client Sample ID: 2022-05-F-A3-20240411-01
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	370		1000	1450		ug/L		108	75 - 125	5	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-609930/1-A
Matrix: Water
Analysis Batch: 610163

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		04/17/24 14:00	04/18/24 19:30	1
Magnesium	ND		1000	61	ug/L		04/17/24 14:00	04/18/24 19:30	1
Potassium	ND		1000	220	ug/L		04/17/24 14:00	04/18/24 19:30	1
Sodium	ND		1000	330	ug/L		04/17/24 14:00	04/18/24 19:30	1

Lab Sample ID: LCS 240-609930/3-A
Matrix: Water
Analysis Batch: 610163

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	25000		ug/L		100	80 - 120
Magnesium	25000	24800		ug/L		99	80 - 120
Potassium	25000	24000		ug/L		96	80 - 120
Sodium	25000	25100		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-202902-1 MS
Matrix: Water
Analysis Batch: 610163

Client Sample ID: 2022-05-F-A3-20240411-01
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	36000	F1	25000	55600	F1	ug/L		78	80 - 120
Magnesium	11000		25000	32400		ug/L		84	80 - 120
Potassium	3500		25000	25700		ug/L		88	80 - 120
Sodium	1600000		25000	1470000	4	ug/L		-591	80 - 120

Lab Sample ID: 240-202902-1 MSD
Matrix: Water
Analysis Batch: 610163

Client Sample ID: 2022-05-F-A3-20240411-01
Prep Type: Total Recoverable
Prep Batch: 609930

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	36000	F1	25000	60100		ug/L		96	80 - 120	8	20
Magnesium	11000		25000	35100		ug/L		95	80 - 120	8	20
Potassium	3500		25000	27600		ug/L		96	80 - 120	7	20
Sodium	1600000		25000	1590000	4	ug/L		-99	80 - 120	8	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-610419/30
Matrix: Water
Analysis Batch: 610419

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/19/24 21:39	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/19/24 21:39	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/19/24 21:39	1

Lab Sample ID: MB 240-610419/4
Matrix: Water
Analysis Batch: 610419

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			04/19/24 19:31	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/19/24 19:31	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			04/19/24 19:31	1

Lab Sample ID: LCS 240-610419/29
Matrix: Water
Analysis Batch: 610419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	80.6	87.4		mg/L		108	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-610474/3
Matrix: Water
Analysis Batch: 610474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			04/23/24 09:32	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-610474/3
Matrix: Water
Analysis Batch: 610474

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			04/23/24 09:32	1
Sulfate	ND		1.0	0.35	mg/L			04/23/24 09:32	1

Lab Sample ID: LCS 240-610474/4
Matrix: Water
Analysis Batch: 610474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.3		mg/L		101	90 - 110		
Fluoride			2.50	2.62		mg/L		105	90 - 110		
Sulfate			50.0	51.4		mg/L		103	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-610109/1
Matrix: Water
Analysis Batch: 610109

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			04/18/24 14:00	1

Lab Sample ID: LCS 240-610109/2
Matrix: Water
Analysis Batch: 610109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			505	482		mg/L		95	80 - 120		

Lab Sample ID: MB 240-610208/1
Matrix: Water
Analysis Batch: 610208

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			04/19/24 09:51	1

Lab Sample ID: LCS 240-610208/2
Matrix: Water
Analysis Batch: 610208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			505	499		mg/L		99	80 - 120		

Lab Sample ID: 240-202902-3 DU
Matrix: Water
Analysis Batch: 610208

Client Sample ID: 2022-03-F-A3-20240412-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	22000			21800		mg/L				0.9	20

Metals

Prep Batch: 609930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-1	2022-05-F-A3-20240411-01	Total Recoverable	Water	3005A	
240-202902-2	2022-04-F-A3-20240411-01	Total Recoverable	Water	3005A	
240-202902-3	2022-03-F-A3-20240412-01	Total Recoverable	Water	3005A	
240-202902-4	2022-14-F-A3-20240412-01	Total Recoverable	Water	3005A	
240-202902-5	2022-06-F-A3-20240412-01	Total Recoverable	Water	3005A	
240-202902-6	2022-12-F-A3-20240415-01	Total Recoverable	Water	3005A	
240-202902-7	2022-13-F-A3-20240415-01	Total Recoverable	Water	3005A	
MB 240-609930/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-609930/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-609930/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-202902-1 MS	2022-05-F-A3-20240411-01	Total Recoverable	Water	3005A	
240-202902-1 MS	2022-05-F-A3-20240411-01	Total Recoverable	Water	3005A	
240-202902-1 MSD	2022-05-F-A3-20240411-01	Total Recoverable	Water	3005A	
240-202902-1 MSD	2022-05-F-A3-20240411-01	Total Recoverable	Water	3005A	

Analysis Batch: 610147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-1	2022-05-F-A3-20240411-01	Total Recoverable	Water	6010D	609930
240-202902-2	2022-04-F-A3-20240411-01	Total Recoverable	Water	6010D	609930
240-202902-3	2022-03-F-A3-20240412-01	Total Recoverable	Water	6010D	609930
240-202902-4	2022-14-F-A3-20240412-01	Total Recoverable	Water	6010D	609930
240-202902-5	2022-06-F-A3-20240412-01	Total Recoverable	Water	6010D	609930
240-202902-6	2022-12-F-A3-20240415-01	Total Recoverable	Water	6010D	609930
240-202902-7	2022-13-F-A3-20240415-01	Total Recoverable	Water	6010D	609930
MB 240-609930/1-A	Method Blank	Total Recoverable	Water	6010D	609930
LCS 240-609930/2-A	Lab Control Sample	Total Recoverable	Water	6010D	609930
240-202902-1 MS	2022-05-F-A3-20240411-01	Total Recoverable	Water	6010D	609930
240-202902-1 MSD	2022-05-F-A3-20240411-01	Total Recoverable	Water	6010D	609930

Analysis Batch: 610163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-1	2022-05-F-A3-20240411-01	Total Recoverable	Water	6020B	609930
240-202902-2	2022-04-F-A3-20240411-01	Total Recoverable	Water	6020B	609930
240-202902-3	2022-03-F-A3-20240412-01	Total Recoverable	Water	6020B	609930
240-202902-4	2022-14-F-A3-20240412-01	Total Recoverable	Water	6020B	609930
240-202902-5	2022-06-F-A3-20240412-01	Total Recoverable	Water	6020B	609930
240-202902-6	2022-12-F-A3-20240415-01	Total Recoverable	Water	6020B	609930
240-202902-7	2022-13-F-A3-20240415-01	Total Recoverable	Water	6020B	609930
MB 240-609930/1-A	Method Blank	Total Recoverable	Water	6020B	609930
LCS 240-609930/3-A	Lab Control Sample	Total Recoverable	Water	6020B	609930
240-202902-1 MS	2022-05-F-A3-20240411-01	Total Recoverable	Water	6020B	609930
240-202902-1 MSD	2022-05-F-A3-20240411-01	Total Recoverable	Water	6020B	609930

General Chemistry

Analysis Batch: 610109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-1	2022-05-F-A3-20240411-01	Total/NA	Water	SM 2540C	
240-202902-2	2022-04-F-A3-20240411-01	Total/NA	Water	SM 2540C	
MB 240-610109/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-610109/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 610208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-3	2022-03-F-A3-20240412-01	Total/NA	Water	SM 2540C	
240-202902-4	2022-14-F-A3-20240412-01	Total/NA	Water	SM 2540C	
240-202902-5	2022-06-F-A3-20240412-01	Total/NA	Water	SM 2540C	
240-202902-6	2022-12-F-A3-20240415-01	Total/NA	Water	SM 2540C	
240-202902-7	2022-13-F-A3-20240415-01	Total/NA	Water	SM 2540C	
MB 240-610208/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-610208/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-202902-3 DU	2022-03-F-A3-20240412-01	Total/NA	Water	SM 2540C	

Analysis Batch: 610419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-1	2022-05-F-A3-20240411-01	Total/NA	Water	2320B-1997	
240-202902-2	2022-04-F-A3-20240411-01	Total/NA	Water	2320B-1997	
240-202902-3	2022-03-F-A3-20240412-01	Total/NA	Water	2320B-1997	
240-202902-4	2022-14-F-A3-20240412-01	Total/NA	Water	2320B-1997	
240-202902-5	2022-06-F-A3-20240412-01	Total/NA	Water	2320B-1997	
240-202902-6	2022-12-F-A3-20240415-01	Total/NA	Water	2320B-1997	
240-202902-7	2022-13-F-A3-20240415-01	Total/NA	Water	2320B-1997	
MB 240-610419/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-610419/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-610419/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 610474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-202902-1	2022-05-F-A3-20240411-01	Total/NA	Water	300.0	
240-202902-1	2022-05-F-A3-20240411-01	Total/NA	Water	300.0	
240-202902-2	2022-04-F-A3-20240411-01	Total/NA	Water	300.0	
240-202902-3	2022-03-F-A3-20240412-01	Total/NA	Water	300.0	
240-202902-3	2022-03-F-A3-20240412-01	Total/NA	Water	300.0	
240-202902-4	2022-14-F-A3-20240412-01	Total/NA	Water	300.0	
240-202902-5	2022-06-F-A3-20240412-01	Total/NA	Water	300.0	
240-202902-6	2022-12-F-A3-20240415-01	Total/NA	Water	300.0	
240-202902-6	2022-12-F-A3-20240415-01	Total/NA	Water	300.0	
240-202902-7	2022-13-F-A3-20240415-01	Total/NA	Water	300.0	
240-202902-7	2022-13-F-A3-20240415-01	Total/NA	Water	300.0	
MB 240-610474/3	Method Blank	Total/NA	Water	300.0	
LCS 240-610474/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Client Sample ID: 2022-05-F-A3-20240411-01
Lab Sample ID: 240-202902-1
Date Collected: 04/11/24 12:54
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 07:50
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		2	610163	RKT	EET CLE	04/18/24 19:35
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:06
Total/NA	Analysis	300.0		5	610474	JWW	EET CLE	04/23/24 20:24
Total/NA	Analysis	300.0		50	610474	JWW	EET CLE	04/23/24 20:46
Total/NA	Analysis	SM 2540C		1	610109	C5SV	EET CLE	04/18/24 14:00

Client Sample ID: 2022-04-F-A3-20240411-01
Lab Sample ID: 240-202902-2
Date Collected: 04/11/24 13:41
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 08:29
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 19:52
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:13
Total/NA	Analysis	300.0		1	610474	JWW	EET CLE	04/23/24 21:07
Total/NA	Analysis	SM 2540C		1	610109	C5SV	EET CLE	04/18/24 14:00

Client Sample ID: 2022-03-F-A3-20240412-01
Lab Sample ID: 240-202902-3
Date Collected: 04/12/24 13:55
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 08:33
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		10	610163	RKT	EET CLE	04/18/24 19:55
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:19
Total/NA	Analysis	300.0		50	610474	JWW	EET CLE	04/23/24 22:34
Total/NA	Analysis	300.0		500	610474	JWW	EET CLE	04/23/24 22:56
Total/NA	Analysis	SM 2540C		1	610208	MS	EET CLE	04/19/24 09:51

Client Sample ID: 2022-14-F-A3-20240412-01
Lab Sample ID: 240-202902-4
Date Collected: 04/12/24 13:26
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 08:37

Client Sample ID: 2022-14-F-A3-20240412-01
Lab Sample ID: 240-202902-4

Date Collected: 04/12/24 13:26
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		10	610163	RKT	EET CLE	04/18/24 19:57
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:25
Total/NA	Analysis	300.0		50	610474	JWW	EET CLE	04/23/24 23:18
Total/NA	Analysis	SM 2540C		1	610208	MS	EET CLE	04/19/24 09:51

Client Sample ID: 2022-06-F-A3-20240412-01
Lab Sample ID: 240-202902-5

Date Collected: 04/12/24 14:42
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 08:42
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 20:00
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:30
Total/NA	Analysis	300.0		1	610474	JWW	EET CLE	04/24/24 00:01
Total/NA	Analysis	SM 2540C		1	610208	MS	EET CLE	04/19/24 09:51

Client Sample ID: 2022-12-F-A3-20240415-01
Lab Sample ID: 240-202902-6

Date Collected: 04/15/24 10:50
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 08:46
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		1	610163	RKT	EET CLE	04/18/24 20:02
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:38
Total/NA	Analysis	300.0		1	610474	JWW	EET CLE	04/24/24 00:45
Total/NA	Analysis	300.0		10	610474	JWW	EET CLE	04/24/24 01:06
Total/NA	Analysis	SM 2540C		1	610208	MS	EET CLE	04/19/24 09:51

Client Sample ID: 2022-13-F-A3-20240415-01
Lab Sample ID: 240-202902-7

Date Collected: 04/15/24 11:54
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6010D		1	610147	KLC	EET CLE	04/18/24 08:50
Total Recoverable	Prep	3005A			609930	BN	EET CLE	04/17/24 14:00
Total Recoverable	Analysis	6020B		2	610163	RKT	EET CLE	04/18/24 20:05
Total/NA	Analysis	2320B-1997		1	610419	JWW	EET CLE	04/19/24 23:44
Total/NA	Analysis	300.0		5	610474	JWW	EET CLE	04/24/24 01:28

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Client Sample ID: 2022-13-F-A3-20240415-01
Lab Sample ID: 240-202902-7

Date Collected: 04/15/24 11:54
Matrix: Water
Date Received: 04/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	300.0		25	610474	JWW	EET CLE	04/24/24 01:50
Total/NA	Analysis	SM 2540C		1	610208	MS	EET CLE	04/19/24 09:51

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-202902-1
Project/Site: Federal CCR Wells App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins Environment Testing America

Client Information	Sampler: H. Luckey doo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-05-F-A3-20240411-01	4-11-24	1254	G	W	N		1	1	1		
2022-04-F-A3-20240411-01	4-11-24	1341	G	W	N		1	1	1		
2022-03-F-A3-20240412-01	4-12-24	1155	G	W	N		1	1	1		
2022-14-F-A3-20240412-01	4-12-24	1326	G	W	N		1	1	1		
2022-06-F-A3-20240412-01	4-12-24	1442	G	W	N		1	1	1		
2022-12-F-A3-20240415-01	4-15-24	1050	G	W	N		1	1	1		
2022-13-F-A3-20240415-01	4-15-24	1154	G	W	N		1	1	1		

240-202902 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Ryan Smith	4-16-24/1020	BEMRON	Ashley Deal	4-16-24 12:45	ETA
2	Ashley Deal	4-16-24 1700	ETA	Jenny Ryan	4-17-24 800	ETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Cleveland Sample Receipt Form/Narrative — Login #: 202902
Barberton Facility

Client Lightstone — Site Name ____ — Cooler unpacked by: [signature]

Cooler Received on 4-17-24 — Opened on 4-17-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other ____

Receipt After-hours Drop-off Date/Time ____ Storage Location ____

Eurofins Cooler # EC — Foam Box Client Cooler Box Other ____

Packing material used. ~~Bubble Wrap~~ Foam Plastic Bag None Other ____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt — [X] See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp ____ °C Corrected Cooler Temp ____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13 17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC329089
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? ____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18 CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container
Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory
Time preserved. ____ Preservative(s) added/Lot number(s) ____

VOA Sample Preservation Date/Time VOAs Frozen. ____

Login # 202907

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 18	3.4	3.4	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 18	12.7	12.7	Wet Ice Blue Ice Dry Ice Water (None)
(EC) Client Box Other	IR GUN #: 18	1.7	1.7	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 18	3.0	3.0	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

4/17/2024

Login Container Summary Report

240-202902

4/24/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05 F-A3-20240411-01	240-202902-A-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20240411-01	240-202902-B-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20240411-01	240-202902-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-A3-20240411-01	240-202902-A-2	Plastic 250ml - unpreserved				
2022-04 F-A3-20240411-01	240-202902-B-2	Plastic 250ml - unpreserved				
2022-04-F-A3-20240411-01	240-202902-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A3-20240412-01	240-202902-A-3	Plastic 250ml - unpreserved				
2022-03-F-A3 20240412-01	240-202902-B-3	Plastic 250ml - unpreserved				
2022-03-F-A3-20240412-01	240-202902-C-3	Plastic 500ml - with Nitric Acid	<2			
2022-14-F A3 20240412-01	240-202902-A-4	Plastic 250ml - unpreserved				
2022-14-F-A3-20240412-01	240-202902-B-4	Plastic 250ml - unpreserved				
2022-14-F-A3-20240412-01	240-202902-C-4	Plastic 500ml - with Nitric Acid	<2			
2022-06-F-A3-20240412-01	240-202902-A-5	Plastic 250ml - unpreserved				
2022-06-F-A3 20240412-01	240-202902-B-5	Plastic 250ml - unpreserved				
2022-06-F-A3-20240412-01	240-202902-C-5	Plastic 500ml with Nitric Acid	<2			
2022-12-F-A3-20240415-01	240-202902-A-6	Plastic 250ml - unpreserved				
2022-12-F-A3-20240415-01	240-202902-B-6	Plastic 250ml - unpreserved				
2022-12-F-A3-20240415-01	240-202902-C-6	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A3-20240415-01	240-202902-A-7	Plastic 250ml - unpreserved				
2022-13-F-A3-20240415-01	240-202902-B-7	Plastic 250ml - unpreserved				
2022-13 F-A3 20240415-01	240-202902-C-7	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/9/2024 10:15:20 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207036-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207036-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
240-207036-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/1/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.3°C, 3.3°C, 3.6°C, 4.5°C, 4.6°C and 9.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207036-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207036-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207036-1	9910-F-A4-20240626-01	Water	06/26/24 14:20	07/01/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207036-1

Client Sample ID: 9910-F-A4-20240626-01

Lab Sample ID: 240-207036-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.78	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	3.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	230		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	14000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Lithium	31	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	4100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	15		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2600		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	17		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1200000		2000	660	ug/L	2		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207036-1

Client Sample ID: 9910-F-A4-20240626-01
Date Collected: 06/26/24 14:20
Date Received: 07/01/24 08:00

Lab Sample ID: 240-207036-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.78**	**J**	2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:56	1
Arsenic	**3.8**	**J**	5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:56	1
Barium	**230**		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 18:56	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:56	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:56	1
Calcium	**14000**		1000	250	ug/L		07/02/24 14:00	07/05/24 18:56	1
Chromium	**2.8**	**J**	5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:56	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:56	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:56	1
Lithium	**31**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:56	1
Magnesium	**4100**		1000	61	ug/L		07/02/24 14:00	07/05/24 18:56	1
Molybdenum	**15**		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:56	1
Potassium	**2600**		1000	220	ug/L		07/02/24 14:00	07/05/24 18:56	1
Selenium	**17**		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:56	1
Sodium	**1200000**		2000	660	ug/L		07/02/24 14:00	07/08/24 18:38	2
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 18:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:25	1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:35	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:35	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:35	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 18:35	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lithium	1.98	J	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:35	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 18:35	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:35	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:35	1

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/08/24 12:10	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 12:10	1

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.4		ug/L		98	80 - 120
Arsenic	1000	950		ug/L		95	80 - 120
Barium	1000	946		ug/L		95	80 - 120
Beryllium	500	441		ug/L		88	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24000		ug/L		96	80 - 120
Chromium	500	492		ug/L		98	80 - 120
Cobalt	500	487		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	525		ug/L		105	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	911		ug/L		91	80 - 120

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-618582/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 619180
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	1000	966		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-618589/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 618959
Prep Batch: 618589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:15	1

Lab Sample ID: LCS 240-618589/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 618959
Prep Batch: 618589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.87		ug/L		97	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207036-1

Metals

Prep Batch: 618582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207036-1	9910-F-A4-20240626-01	Total Recoverable	Water	3005A	
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 618589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207036-1	9910-F-A4-20240626-01	Total/NA	Water	7470A	
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 618959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207036-1	9910-F-A4-20240626-01	Total/NA	Water	7470A	618589
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	618589
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	618589

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207036-1	9910-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Analysis Batch: 619180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207036-1	9910-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207036-1	9910-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207036-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 9910-F-A4-20240626-01
Lab Sample ID: 240-207036-1
Date Collected: 06/26/24 14:20
Matrix: Water
Date Received: 07/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 18:56
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		2	619180	AJC	EET CLE	07/08/24 18:38
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	619180	AJC	EET CLE	07/08/24 18:41
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:25

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207036-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Cato	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin: Columbus 209	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9910-F-A4-20240626-01	6-26-24	1420	G	Water	N		1					*Limited Volume
				Water								
				Water								
				Water								
				Water								

240-207036 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Cato	6-25-24/0945	Kleinfelder	Ashley Deal	6-28-24 1255	ETA
2	Ashley Deal	6-25-24 1200	ESA	TAMMY ROYER	6-29-24 800	ETC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins - Cleveland Sample Receipt Form/Narrative — Login # 240710316
Barberton Facility

Client Lightstone — Site Name

Cooler unpacked by: TAMMY ROYER

Cooler Received on 6-29-24 — Opened on 7-1-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time — Storage Location

Eurofins Cooler # ES Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM ____ Date ____ by ____ via Verbal Voice Mail Other

Concerning ____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container
Sample(s) ____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in the laboratory
Time preserved. ____ Preservative(s) added/Lot number(s). ____

VOA Sample Preservation - Date/Time VOAs Frozen. ____

Login # : 207036

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(1) EC Client Box Other	IR GUN #: 18	3.6	3.6	(Wet Ice) Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	9.1	9.1	Wet Ice Blue Ice Dry Ice Water (None)
(3) EC Client Box Other	IR GUN #: 18	1.3	1.3	(Wet Ice) Blue Ice Dry Ice Water None
(4) EC Client Box Other	IR GUN #: 18	3.3	3.3	(Wet Ice) Blue Ice Dry Ice Water None
(5) EC Client Box Other	IR GUN #: 18	4.5	4.5	(Wet Ice) Blue Ice Dry Ice Water None
(6) EC Client Box Other	IR GUN #: 18	4.6	4.6	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

7/1/2024

Login Container Summary Report

240-207036

7/9/2024

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9910-F-A4-20240626-01	240-207036-A-1	Plastic 500ml - with Nitric Acid	<2	_____	_____	_____

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/14/2024 8:23:26 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207037-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207037-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207037-1 Eurofins Cleveland

Job Narrative
240-207037-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/29/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.3°C, 3.3°C, 3.6°C, 4.5°C, 4.6°C and 9.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A3-20240626-01 (240-207037-1) and DUP-001-F-A3-20240626-01 (240-207037-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207037-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207037-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207037-1	9631-F-A3-20240626-01	Water	06/26/24 12:15	06/29/24 08:00
240-207037-2	DUP-001-F-A3-20240626-01	Water	06/26/24 00:00	06/29/24 08:00
240-207037-3	EB-001-F-A3-20240626-01	Water	06/26/24 16:45	06/29/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207037-1

Client Sample ID: 9631-F-A3-20240626-01 — Lab Sample ID: 240-207037-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1500000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	470000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	25000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	13000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	75		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	75		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	30000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	37000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-A3-20240626-01 — Lab Sample ID: 240-207037-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	350		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1400000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	440000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	13000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	72		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	72		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	29000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	42000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-A3-20240626-01 — Lab Sample ID: 240-207037-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	340	J	1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	73	J	1000	61	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207037-1

Client Sample ID: 9631-F-A3-20240626-01

Date Collected: 06/26/24 12:15
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207037-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		07/02/24 14:00	07/04/24 05:39	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1500000		1000	250	ug/L		07/02/24 14:00	07/03/24 20:18	1
Magnesium	470000		1000	61	ug/L		07/02/24 14:00	07/03/24 20:18	1
Potassium	25000		1000	220	ug/L		07/02/24 14:00	07/03/24 20:18	1
Sodium	13000000		20000	6600	ug/L		07/02/24 14:00	07/05/24 11:33	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	75		5.0	2.6	mg/L			07/08/24 11:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	75		5.0	2.6	mg/L			07/08/24 11:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:32	1
Chloride (EPA 300.0)	30000		1000	130	mg/L			07/10/24 09:58	1000
Fluoride (EPA 300.0)	ND		1.3	0.60	mg/L			07/11/24 23:46	25
Sulfate (EPA 300.0)	ND		25	8.7	mg/L			07/11/24 23:46	25
Total Dissolved Solids (SM 2540C)	37000		1000	780	mg/L			07/03/24 08:30	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207037-1

Client Sample ID: DUP-001-F-A3-20240626-01

Date Collected: 06/26/24 00:00
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207037-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	350		100	57	ug/L		07/02/24 14:00	07/04/24 08:35	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1400000		1000	250	ug/L		07/02/24 14:00	07/03/24 21:12	1
Magnesium	440000		1000	61	ug/L		07/02/24 14:00	07/03/24 21:12	1
Potassium	23000		1000	220	ug/L		07/02/24 14:00	07/03/24 21:12	1
Sodium	13000000		20000	6600	ug/L		07/02/24 14:00	07/05/24 12:13	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	72		5.0	2.6	mg/L			07/08/24 11:41	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	72		5.0	2.6	mg/L			07/08/24 11:41	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:41	1
Chloride (EPA 300.0)	29000		1000	130	mg/L			07/10/24 07:20	1000
Fluoride (EPA 300.0)	ND		1.3	0.60	mg/L			07/12/24 00:46	25
Sulfate (EPA 300.0)	ND		25	8.7	mg/L			07/12/24 00:46	25
Total Dissolved Solids (SM 2540C)	42000		1000	780	mg/L			07/03/24 08:30	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207037-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: EB-001-F-A3-20240626-01
Lab Sample ID: 240-207037-3

Date Collected: 06/26/24 16:45
Matrix: Water
Date Received: 06/29/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 08:44	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**340**	**J**	1000	250	ug/L		07/02/24 14:00	07/03/24 21:14	1
Magnesium	**73**	**J**	1000	61	ug/L		07/02/24 14:00	07/03/24 21:14	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 21:14	1
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 12:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:46	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			07/10/24 07:40	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			07/12/24 05:46	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			07/10/24 07:40	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			07/03/24 11:34	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618786

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 05:31	1

Lab Sample ID: LCS 240-618610/2-A
Matrix: Water
Analysis Batch: 618786

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1040		ug/L		104	80 - 120

Lab Sample ID: 240-207037-1 MS
Matrix: Water
Analysis Batch: 618786

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	370		1000	1470		ug/L		111	75 - 125

Lab Sample ID: 240-207037-1 MSD
Matrix: Water
Analysis Batch: 618786

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	370		1000	1460		ug/L		110	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618830

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/03/24 20:13	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/03/24 20:13	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 20:13	1

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 11:23	1

Lab Sample ID: LCS 240-618610/3-A
Matrix: Water
Analysis Batch: 618830

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24300		ug/L		97	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-618610/3-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			25000	25300		ug/L		101	80 - 120		

Lab Sample ID: 240-207037-1 MS
Matrix: Water
Analysis Batch: 618830

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium	1500000		25000	1520000	4	ug/L		-23	80 - 120		
Magnesium	470000		25000	482000	4	ug/L		31	80 - 120		
Potassium	25000		25000	50300		ug/L		103	80 - 120		

Lab Sample ID: 240-207037-1 MS
Matrix: Water
Analysis Batch: 618964

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium	13000000		25000	13400000	4	ug/L		-129	80 - 120		

Lab Sample ID: 240-207037-1 MSD
Matrix: Water
Analysis Batch: 618830

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	1500000		25000	1470000	4	ug/L		-195	80 - 120	3	20
Magnesium	470000		25000	471000	4	ug/L		-14	80 - 120	2	20
Potassium	25000		25000	49200		ug/L		99	80 - 120	2	20

Lab Sample ID: 240-207037-1 MSD
Matrix: Water
Analysis Batch: 618964

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	13000000		25000	13200000	4	ug/L		-936	80 - 120	2	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-619189/3
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	270		mg/L		96	86 - 123		

Lab Sample ID: 240-207037-1 DU
Matrix: Water
Analysis Batch: 619189

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	75			74.9		mg/L				0.1	20
Bicarbonate Alkalinity as CaCO3	75			74.9		mg/L				0.1	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619300/3
Matrix: Water
Analysis Batch: 619300

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/10/24 03:23	1
Sulfate	ND		1.0	0.35	mg/L			07/10/24 03:23	1

Lab Sample ID: LCS 240-619300/4
Matrix: Water
Analysis Batch: 619300

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	52.0		mg/L		104	90 - 110		
Sulfate			50.0	51.4		mg/L		103	90 - 110		

Lab Sample ID: 240-207037-1 MS
Matrix: Water
Analysis Batch: 619300

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	30000		50000	73500		mg/L		88	80 - 120		

Lab Sample ID: 240-207037-1 MSD
Matrix: Water
Analysis Batch: 619300

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	30000		50000	73000		mg/L		87	80 - 120	1	15

Lab Sample ID: MB 240-619627/3
Matrix: Water
Analysis Batch: 619627

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/11/24 15:25	1
Sulfate	ND		1.0	0.35	mg/L			07/11/24 15:25	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 240-619627/39
Matrix: Water
Analysis Batch: 619627

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 03:26	1

Lab Sample ID: LCS 240-619627/4
Matrix: Water
Analysis Batch: 619627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.61		mg/L		104	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Lab Sample ID: LCS 240-619627/40
Matrix: Water
Analysis Batch: 619627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.58		mg/L		103	90 - 110

Lab Sample ID: 240-207037-1 MS
Matrix: Water
Analysis Batch: 619627

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	ND		62.5	61.2		mg/L		98	80 - 120
Sulfate	ND		1250	1260		mg/L		101	80 - 120

Lab Sample ID: 240-207037-1 MSD
Matrix: Water
Analysis Batch: 619627

Client Sample ID: 9631-F-A3-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		62.5	60.6		mg/L		97	80 - 120	1	15
Sulfate	ND		1250	1250		mg/L		100	80 - 120	1	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-618699/1
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 08:30	1

Lab Sample ID: LCS 240-618699/2
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	442	410		mg/L		93	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 240-207037-1 DU
Client Sample ID: 9631-F-A3-20240626-01
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 618699

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	37000			39700		mg/L				8	20

Lab Sample ID: MB 240-618774/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 618774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 11:34	1

Lab Sample ID: LCS 240-618774/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 618774

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			442	386		mg/L		87	80 - 120		

Metals

Prep Batch: 618610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total Recoverable	Water	3005A	
240-207037-2	DUP-001-F-A3-20240626-01	Total Recoverable	Water	3005A	
240-207037-3	EB-001-F-A3-20240626-01	Total Recoverable	Water	3005A	
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-207037-1 MS	9631-F-A3-20240626-01	Total Recoverable	Water	3005A	
240-207037-1 MS	9631-F-A3-20240626-01	Total Recoverable	Water	3005A	
240-207037-1 MSD	9631-F-A3-20240626-01	Total Recoverable	Water	3005A	
240-207037-1 MSD	9631-F-A3-20240626-01	Total Recoverable	Water	3005A	

Analysis Batch: 618786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total Recoverable	Water	6010D	618610
240-207037-2	DUP-001-F-A3-20240626-01	Total Recoverable	Water	6010D	618610
240-207037-3	EB-001-F-A3-20240626-01	Total Recoverable	Water	6010D	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6010D	618610
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	6010D	618610
240-207037-1 MS	9631-F-A3-20240626-01	Total Recoverable	Water	6010D	618610
240-207037-1 MSD	9631-F-A3-20240626-01	Total Recoverable	Water	6010D	618610

Analysis Batch: 618830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
240-207037-2	DUP-001-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
240-207037-3	EB-001-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610
240-207037-1 MS	9631-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
240-207037-1 MSD	9631-F-A3-20240626-01	Total Recoverable	Water	6020B	618610

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
240-207037-2	DUP-001-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
240-207037-3	EB-001-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610
240-207037-1 MS	9631-F-A3-20240626-01	Total Recoverable	Water	6020B	618610
240-207037-1 MSD	9631-F-A3-20240626-01	Total Recoverable	Water	6020B	618610

General Chemistry

Analysis Batch: 618699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total/NA	Water	SM 2540C	
240-207037-2	DUP-001-F-A3-20240626-01	Total/NA	Water	SM 2540C	
MB 240-618699/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618699/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-207037-1 DU	9631-F-A3-20240626-01	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 618774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-3	EB-001-F-A3-20240626-01	Total/NA	Water	SM 2540C	
MB 240-618774/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618774/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total/NA	Water	2320B-1997	
240-207037-2	DUP-001-F-A3-20240626-01	Total/NA	Water	2320B-1997	
240-207037-3	EB-001-F-A3-20240626-01	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-207037-1 DU	9631-F-A3-20240626-01	Total/NA	Water	2320B-1997	

Analysis Batch: 619300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total/NA	Water	300.0	
240-207037-2	DUP-001-F-A3-20240626-01	Total/NA	Water	300.0	
240-207037-3	EB-001-F-A3-20240626-01	Total/NA	Water	300.0	
MB 240-619300/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619300/4	Lab Control Sample	Total/NA	Water	300.0	
240-207037-1 MS	9631-F-A3-20240626-01	Total/NA	Water	300.0	
240-207037-1 MSD	9631-F-A3-20240626-01	Total/NA	Water	300.0	

Analysis Batch: 619627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207037-1	9631-F-A3-20240626-01	Total/NA	Water	300.0	
240-207037-2	DUP-001-F-A3-20240626-01	Total/NA	Water	300.0	
240-207037-3	EB-001-F-A3-20240626-01	Total/NA	Water	300.0	
MB 240-619627/3	Method Blank	Total/NA	Water	300.0	
MB 240-619627/39	Method Blank	Total/NA	Water	300.0	
LCS 240-619627/4	Lab Control Sample	Total/NA	Water	300.0	
LCS 240-619627/40	Lab Control Sample	Total/NA	Water	300.0	
240-207037-1 MS	9631-F-A3-20240626-01	Total/NA	Water	300.0	
240-207037-1 MSD	9631-F-A3-20240626-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207037-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 9631-F-A3-20240626-01
Lab Sample ID: 240-207037-1

Date Collected: 06/26/24 12:15
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 05:39
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 20:18
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		20	618964	AJC	EET CLE	07/05/24 11:33
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 11:32
Total/NA	Analysis	300.0		1000	619300	JWW	EET CLE	07/10/24 09:58
Total/NA	Analysis	300.0		25	619627	JWW	EET CLE	07/11/24 23:46
Total/NA	Analysis	SM 2540C		1	618699	UWU2	EET CLE	07/03/24 08:30

Client Sample ID: DUP-001-F-A3-20240626-01
Lab Sample ID: 240-207037-2

Date Collected: 06/26/24 00:00
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 08:35
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:12
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		20	618964	AJC	EET CLE	07/05/24 12:13
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 11:41
Total/NA	Analysis	300.0		1000	619300	JWW	EET CLE	07/10/24 07:20
Total/NA	Analysis	300.0		25	619627	JWW	EET CLE	07/12/24 00:46
Total/NA	Analysis	SM 2540C		1	618699	UWU2	EET CLE	07/03/24 08:30

Client Sample ID: EB-001-F-A3-20240626-01
Lab Sample ID: 240-207037-3

Date Collected: 06/26/24 16:45
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 08:44
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:14
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 12:16
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 11:46
Total/NA	Analysis	300.0		1	619300	JWW	EET CLE	07/10/24 07:40
Total/NA	Analysis	300.0		1	619627	JWW	EET CLE	07/12/24 05:46
Total/NA	Analysis	SM 2540C		1	618774	UWU2	EET CLE	07/03/24 11:34

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207037-1
Project/Site: Federal CCR Wells - App III

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207037-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Columbus
209

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Coste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
9631-F-A3-20240626-01	6-26-24	1215	G	W			1	1	1		
9631-F-A3-20240626-MS-01	6-26-24	1215	G	W			1	1	1		
9631-F-A3-20240626-MSD-01	6-26-24	1215	G	W			1	1	1		
DUP-001-F-A3-20240626-01	6-26-24	—	G	W			1	1	1		
EB-001-F-A3-20240626-01	6-26-24	1645	G	W			1	1	1		

240-207037 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Coste	6-28-24/0945	FENRAL	Ashley Deal	6/28/24 1255	ERA
2	Ashley Deal	6/28/24 1700	ERA	TAMMY ROYER	6-29-24 800	PETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

7/14/2024

Eurofins = Cleveland Sample Receipt Form/Narrative Login # 240627
Barberton Facility

Client Lightstone Site Name

Cooler Received on 6-29-24 Opened on 7-1-24

Cooler unpacked by: TAMMY ROYER

FedEx 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # E Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	Yes	No
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : 207037

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
1 EC Client Box Other	IR GUN #: 18	3.6	3.6	Wet Ice Blue Ice Dry Ice Water None
2 EC Client Box Other	IR GUN #: 18	9.1	9.1	Wet Ice Blue Ice Dry Ice Water None
3 EC Client Box Other	IR GUN #: 18	1.3	1.3	Wet Ice Blue Ice Dry Ice Water None
4 EC Client Box Other	IR GUN #: 18	3.3	3.3	Wet Ice Blue Ice Dry Ice Water None
5 EC Client Box Other	IR GUN #: 18	4.5	4.5	Wet Ice Blue Ice Dry Ice Water None
6 EC Client Box Other	IR GUN #: 18	4.6	4.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

7/1/2024

Login Container Summary Report

240-207037

7/14/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A3-20240626-01	240-207037-A-1	Plastic 250ml - unpreserved				
9631-F-A3-20240626-01	240-207037-A-1 MS	Plastic 250ml - unpreserved				
9631-F-A3-20240626-01	240-207037-A-1 MSD	Plastic 500ml - unpreserved				
9631-F-A3-20240626-01	240-207037-B-1	Plastic 250ml - unpreserved				
9631-F-A3-20240626-01	240-207037-B-1 MS	Plastic 250ml - unpreserved				
9631-F-A3-20240626-01	240-207037-B-1 MSD	Plastic 500ml - unpreserved				
9631-F-A3-20240626-01	240-207037-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A3-20240626-01	240-207037-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A3-20240626-01	240-207037-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A3-20240626-01	240-207037-A-2	Plastic 500ml - unpreserved				
DUP-001-F-A3-20240626-01	240-207037-B-2	Plastic 500ml - unpreserved				
DUP-001-F-A3-20240626-01	240-207037-C-2	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A3-20240626-01	240-207037-A-3	Plastic 250ml - unpreserved				
EB-001-F-A3-20240626-01	240-207037-B-3	Plastic 500ml - unpreserved				
EB-001-F-A3-20240626-01	240-207037-C-3	Plastic 500ml - with Nitric Acid	<2			

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 7/31/2024 3:28:54 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207038-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761

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Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207038-1 Eurofins Cleveland

Job Narrative
240-207038-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/29/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.3°C, 3.3°C, 3.6°C, 4.5°C, 4.6°C and 9.1°C.

Metals
Method 6020B - Total Recoverable: The following samples were diluted due to the nature of the sample matrix: 9631-F-A4-20240626-01 (240-207038-1) and DUP-001-F-A4-20240626-01 (240-207038-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A4-20240626-01 (240-207038-1) and DUP-001-F-A4-20240626-01 (240-207038-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 Batch 160-669429

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240626-01 (240-207038-1), 9631-F-A4-20240626-01 (240-207038-1[MS]), 9631-F-A4-20240626-01 (240-207038-1[MSD]) and DUP-001-F-A4-20240626-01 (240-207038-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium 226 Batch 669429

The Ba Carrier carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240626-01 (240-207038-1), 9631-F-A4-20240626-01 (240-207038-1[MS]), 9631-F-A4-20240626-01 (240-207038-1[MSD]) and DUP-001-F-A4-20240626-01 (240-207038-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference. . The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

Method 9315_Ra226: Radium 226 Batch 669429

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 160-669429 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

9631-F-A4-20240626-01 (240-207038-1[MS]), 9631-F-A4-20240626-01 (240-207038-1[MSD]) and DUP-001-F-A4-20240626-01 (240-207038-2)

Method 9320_Ra228: Radium 228 prep batch 160-669430

Job ID: 240-207038-1 (Continued) Eurofins Cleveland

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240626-01 (240-207038-1), 9631-F-A4-20240626-01 (240-207038-1[MS]), 9631-F-A4-20240626-01 (240-207038-1[MSD]) and DUP-001-F-A4-20240626-01 (240-207038-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 prep batch 160-669430:
The matrix spike/matrix spike duplicate (MS/MSD) has a spike recovery above the QC limit. The activity in the original sample is greater than five (5) times the amount spiked, making the percent recovery information statistically invalid and therefore could not be evaluated for accuracy and precision. The data have been reported. 9631-F-A4-20240626-01 (240-207038-1[MS]) and 9631-F-A4-20240626-01 (240-207038-1[MSD])

Method 9320_Ra228: Radium-228 prep batch 160-669430:

The following samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. Samples with significant salt-like compounds had a native correction applied. The high concentrations of salt-like compounds can interfere with the barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance.The data have been qualified and reported. 9631-F-A4-20240626-01 (240-207038-1), 9631-F-A4-20240626-01 (240-207038-1[MS]), 9631-F-A4-20240626-01 (240-207038-1[MSD]) and DUP-001-F-A4-20240626-01 (240-207038-2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207038-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207038-1	9631-F-A4-20240626-01	Water	06/26/24 12:15	06/29/24 08:00
240-207038-2	DUP-001-F-A4-20240626-01	Water	06/26/24 00:00	06/29/24 08:00
240-207038-3	EB-001-F-A4-20240626-01	Water	06/26/24 16:45	06/29/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207038-1

Client Sample ID: 9631-F-A4-20240626-01 — Lab Sample ID: 240-207038-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.85	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	40000		100	45	ug/L	20		6020B	Total Recoverable
Calcium	1600000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.2		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	360	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	460000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	2.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.1	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	13000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	120		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	120		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: DUP-001-F-A4-20240626-01 — Lab Sample ID: 240-207038-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	40000		100	45	ug/L	20		6020B	Total Recoverable
Calcium	1400000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.1		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	340	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	410000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.8	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	13000000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	78		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	78		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: EB-001-F-A4-20240626-01 — Lab Sample ID: 240-207038-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	7.6	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Sodium	510	J	1000	330	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9631-F-A4-20240626-01
Date Collected: 06/26/24 12:15
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207038-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.85**	**J**	2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:40	1
Arsenic	**2.2**	**J**	5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:40	1
Barium	**40000**		100	45	ug/L		07/02/24 14:00	07/09/24 21:12	20
Beryllium	ND	F1	1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:40	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:40	1
Calcium	**1600000**		1000	250	ug/L		07/02/24 14:00	07/05/24 18:40	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:40	1
Cobalt	**1.2**		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:40	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:40	1
Lithium	**360**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:40	1
Magnesium	**460000**		1000	61	ug/L		07/02/24 14:00	07/05/24 18:40	1
Molybdenum	**2.2**	**J**	5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:40	1
Potassium	**24000**		1000	220	ug/L		07/02/24 14:00	07/05/24 18:40	1
Selenium	**1.1**	**J**	5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:40	1
Sodium	**13000000**		20000	6600	ug/L		07/02/24 14:00	07/09/24 21:12	20
Thallium	ND		5.0	1.0	ug/L		07/02/24 14:00	07/08/24 18:20	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**120**		5.0	2.6	mg/L			07/08/24 11:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**120**		5.0	2.6	mg/L			07/08/24 11:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:49	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			07/12/24 13:27	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**28.8**		0.991	2.78	1.00	0.145	pCi/L	07/05/24 07:45	07/30/24 10:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*226*	*X*	*30 - 110*	*07/05/24 07:45*	*07/30/24 10:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**68.4**		2.56	6.79	1.00	0.607	pCi/L	07/05/24 07:52	07/19/24 12:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*226*	*X*	*30 - 110*	*07/05/24 07:52*	*07/19/24 12:08*	*1*
Y Carrier	*73.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:08*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207038-1

Client Sample ID: 9631-F-A4-20240626-01
Date Collected: 06/26/24 12:15
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207038-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	97.2		2.75	7.34	5.00	0.607	pCi/L		07/31/24 14:07	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207038-1

Client Sample ID: DUP-001-F-A4-20240626-01

Date Collected: 06/26/24 00:00
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207038-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:59	1
Arsenic	**2.1**	**J**	5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:59	1
Barium	**40000**		100	45	ug/L		07/02/24 14:00	07/08/24 18:43	20
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:59	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:59	1
Calcium	**1400000**		1000	250	ug/L		07/02/24 14:00	07/05/24 18:59	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:59	1
Cobalt	**1.1**		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:59	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:59	1
Lithium	**340**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:59	1
Magnesium	**410000**		1000	61	ug/L		07/02/24 14:00	07/05/24 18:59	1
Molybdenum	**1.8**	**J**	5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:59	1
Potassium	**22000**		1000	220	ug/L		07/02/24 14:00	07/05/24 18:59	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:59	1
Sodium	**13000000**		20000	6600	ug/L		07/02/24 14:00	07/08/24 18:43	20
Thallium	ND		20	4.0	ug/L		07/02/24 14:00	07/08/24 18:43	20

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**78**		5.0	2.6	mg/L			07/08/24 11:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**78**		5.0	2.6	mg/L			07/08/24 11:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:54	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			07/12/24 14:27	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**28.5**		0.898	2.71	1.00	0.0936	pCi/L	07/05/24 07:45	07/30/24 10:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*246*	*X*	*30 - 110*	*07/05/24 07:45*	*07/30/24 10:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**78.3**		2.61	7.66	1.00	0.489	pCi/L	07/05/24 07:52	07/19/24 12:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*246*	*X*	*30 - 110*	*07/05/24 07:52*	*07/19/24 12:08*	*1*
Y Carrier	*80.7*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:08*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: DUP-001-F-A4-20240626-01
Lab Sample ID: 240-207038-2
Date Collected: 06/26/24 00:00
Matrix: Water
Date Received: 06/29/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	107		2.76	8.13	5.00	0.489	pCi/L		07/31/24 14:07	1

Client Sample ID: EB-001-F-A4-20240626-01

Lab Sample ID: 240-207038-3

Date Collected: 06/26/24 16:45

Matrix: Water

Date Received: 06/29/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 19:06	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 19:06	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 19:06	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 19:06	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 19:06	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 19:06	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 19:06	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 19:06	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 19:06	1
Lithium	**7.6**	**J B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 19:06	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 19:06	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 19:06	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 19:06	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 19:06	1
Sodium	**510**	**J**	1000	330	ug/L		07/02/24 14:00	07/08/24 18:46	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 18:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 11:58	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			07/12/24 15:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0792	U	0.0689	0.0693	1.00	0.104	pCi/L	07/05/24 07:45	07/30/24 10:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.159	U	0.358	0.359	1.00	0.625	pCi/L	07/05/24 07:52	07/19/24 12:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:08*	*1*
Y Carrier	*80.4*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:08*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207038-1

Client Sample ID: EB-001-F-A4-20240626-01
Date Collected: 06/26/24 16:45
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207038-3
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.238	U	0.365	0.366	5.00	0.625	pCi/L		07/31/24 14:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207038-1	9631-F-A4-20240626-01	226 X
240-207038-1 MS	9631-F-A4-20240626-01	169 X
240-207038-1 MSD	9631-F-A4-20240626-01	166 X
240-207038-2	DUP-001-F-A4-20240626-01	246 X
240-207038-3	EB-001-F-A4-20240626-01	93.3
LCS 160-669429/2-A	Lab Control Sample	95.3
MB 160-669429/1-A	Method Blank	95.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207038-1	9631-F-A4-20240626-01	226 X	73.3
240-207038-1 MS	9631-F-A4-20240626-01	169 X	80.7
240-207038-1 MSD	9631-F-A4-20240626-01	166 X	68.0
240-207038-2	DUP-001-F-A4-20240626-01	246 X	80.7
240-207038-3	EB-001-F-A4-20240626-01	93.3	80.4
LCS 160-669430/2-A	Lab Control Sample	95.3	81.1
MB 160-669430/1-A	Method Blank	95.3	80.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:35	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:35	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:35	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 18:35	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lithium	1.98	J	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:35	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 18:35	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:35	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:35	1

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/08/24 12:10	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 12:10	1

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.4		ug/L		98	80 - 120
Arsenic	1000	950		ug/L		95	80 - 120
Barium	1000	946		ug/L		95	80 - 120
Beryllium	500	441		ug/L		88	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24000		ug/L		96	80 - 120
Chromium	500	492		ug/L		98	80 - 120
Cobalt	500	487		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	525		ug/L		105	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	911		ug/L		91	80 - 120

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	1000	966		ug/L		97	80 - 120

Lab Sample ID: 240-207038-1 MS
Matrix: Water
Analysis Batch: 618964

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.85	J	100	94.8		ug/L		94	80 - 120
Arsenic	2.2	J	1000	1080		ug/L		108	80 - 120
Beryllium	ND	F1	500	379	F1	ug/L		76	80 - 120
Cadmium	ND		500	423		ug/L		85	80 - 120
Calcium	1600000		25000	1460000	4	ug/L		-436	80 - 120
Chromium	ND		500	428		ug/L		86	80 - 120
Cobalt	1.2		500	496		ug/L		99	80 - 120
Lead	ND		500	460		ug/L		92	80 - 120
Lithium	360	B	500	871		ug/L		103	80 - 120
Magnesium	460000		25000	442000	4	ug/L		-81	80 - 120
Molybdenum	2.2	J	500	516		ug/L		103	80 - 120
Potassium	24000		25000	44700		ug/L		85	80 - 120
Selenium	1.1	J	1000	909		ug/L		91	80 - 120

Lab Sample ID: 240-207038-1 MS
Matrix: Water
Analysis Batch: 619180

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	ND		1000	988		ug/L		99	80 - 120

Lab Sample ID: 240-207038-1 MS
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	40000		1000	41800	4	ug/L		205	80 - 120
Sodium	13000000		25000	13200000	4	ug/L		1059	80 - 120

Lab Sample ID: 240-207038-1 MSD
Matrix: Water
Analysis Batch: 618964

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.85	J	100	100		ug/L		100	80 - 120	6	20
Arsenic	2.2	J	1000	1160		ug/L		116	80 - 120	8	20
Beryllium	ND	F1	500	396	F1	ug/L		79	80 - 120	4	20
Cadmium	ND		500	446		ug/L		89	80 - 120	5	20
Calcium	1600000		25000	1550000	4	ug/L		-74	80 - 120	6	20
Chromium	ND		500	450		ug/L		90	80 - 120	5	20
Cobalt	1.2		500	533		ug/L		106	80 - 120	7	20
Lead	ND		500	487		ug/L		97	80 - 120	6	20
Lithium	360	B	500	940		ug/L		117	80 - 120	8	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-207038-1 MSD — **Client Sample ID: 9631-F-A4-20240626-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 618964 — **Prep Batch: 618582**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	460000		25000	466000	4	ug/L		12	80 - 120	5	20
Molybdenum	2.2	J	500	551		ug/L		110	80 - 120	7	20
Potassium	24000		25000	47500		ug/L		96	80 - 120	6	20
Selenium	1.1	J	1000	976		ug/L		97	80 - 120	7	20

Lab Sample ID: 240-207038-1 MSD — **Client Sample ID: 9631-F-A4-20240626-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 619180 — **Prep Batch: 618582**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	ND		1000	964		ug/L		96	80 - 120	2	20

Lab Sample ID: 240-207038-1 MSD — **Client Sample ID: 9631-F-A4-20240626-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 619271 — **Prep Batch: 618582**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	40000		1000	43600	4	ug/L		385	80 - 120	4	20
Sodium	13000000		25000	13800000	4	ug/L		3388	80 - 120	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-618589/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618959 — **Prep Batch: 618589**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:15	1

Lab Sample ID: LCS 240-618589/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618959 — **Prep Batch: 618589**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.87		ug/L		97	80 - 120

Lab Sample ID: 240-207038-1 MS — **Client Sample ID: 9631-F-A4-20240626-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618959 — **Prep Batch: 618589**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	F1	1.00	0.729	F1	ug/L		73	80 - 120

Lab Sample ID: 240-207038-1 MSD — **Client Sample ID: 9631-F-A4-20240626-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 618959 — **Prep Batch: 618589**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	1.00	0.724	F1	ug/L		72	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/3
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	270		mg/L		96	86 - 123		

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619394/3
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 07:26	1

Lab Sample ID: LCS 240-619394/4
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.58		mg/L		103	90 - 110		

Lab Sample ID: 240-207038-1 MS
Matrix: Water
Analysis Batch: 619394

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	ND		125	123		mg/L		98	80 - 120		

Lab Sample ID: 240-207038-1 MSD
Matrix: Water
Analysis Batch: 619394

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		125	122		mg/L		98	80 - 120	1	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669429/1-A
Matrix: Water
Analysis Batch: 672930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669429

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008971	U	0.0386	0.0386	1.00	0.0893	pCi/L	07/05/24 07:45	07/30/24 10:22	1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: MB 160-669429/1-A
Matrix: Water
Analysis Batch: 672930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669429

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		30 - 110	07/05/24 07:45	07/30/24 10:22	1

Lab Sample ID: LCS 160-669429/2-A
Matrix: Water
Analysis Batch: 672949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669429

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.40		1.08	1.00	0.0904	pCi/L	92	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		30 - 110

Lab Sample ID: 240-207038-1 MS
Matrix: Water
Analysis Batch: 672949

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total/NA
Prep Batch: 669429

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	28.8		11.3	30.50	F1	2.93	1.00	0.115	pCi/L	15	60 - 140		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	169	X	30 - 110

Lab Sample ID: 240-207038-1 MSD
Matrix: Water
Analysis Batch: 672949

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total/NA
Prep Batch: 669429

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	28.8		11.3	26.85	F1	2.61	1.00	0.141	pCi/L	-18	60 - 140	0.66	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	166	X	30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669430/1-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669430

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5045	U	0.358	0.361	1.00	0.541	pCi/L	07/05/24 07:52	07/19/24 12:10	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		30 - 110	07/05/24 07:52	07/19/24 12:10	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-669430/1-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669430

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	80.0		30 - 110	07/05/24 07:52	07/19/24 12:10	1

Lab Sample ID: LCS 160-669430/2-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669430

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.75	10.27		1.38	1.00	0.499	pCi/L	117	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.3		30 - 110
Y Carrier	81.1		30 - 110

Lab Sample ID: 240-207038-1 MS
Matrix: Water
Analysis Batch: 671346

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total/NA
Prep Batch: 669430

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	68.4		8.75	61.65	F1	6.13	1.00	0.524	pCi/L	-77	60 - 140		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	169	X	30 - 110
Y Carrier	80.7		30 - 110

Lab Sample ID: 240-207038-1 MSD
Matrix: Water
Analysis Batch: 671346

Client Sample ID: 9631-F-A4-20240626-01
Prep Type: Total/NA
Prep Batch: 669430

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	68.4		8.75	57.42	F1	5.82	1.00	0.525	pCi/L	-125	60 - 140	0.35	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	166	X	30 - 110
Y Carrier	68.0		30 - 110

Metals

Prep Batch: 618582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total Recoverable	Water	3005A	
240-207038-2	DUP-001-F-A4-20240626-01	Total Recoverable	Water	3005A	
240-207038-3	EB-001-F-A4-20240626-01	Total Recoverable	Water	3005A	
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-207038-1 MS	9631-F-A4-20240626-01	Total Recoverable	Water	3005A	
240-207038-1 MSD	9631-F-A4-20240626-01	Total Recoverable	Water	3005A	

Prep Batch: 618589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total/NA	Water	7470A	
240-207038-2	DUP-001-F-A4-20240626-01	Total/NA	Water	7470A	
240-207038-3	EB-001-F-A4-20240626-01	Total/NA	Water	7470A	
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-207038-1 MS	9631-F-A4-20240626-01	Total/NA	Water	7470A	
240-207038-1 MSD	9631-F-A4-20240626-01	Total/NA	Water	7470A	

Analysis Batch: 618959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total/NA	Water	7470A	618589
240-207038-2	DUP-001-F-A4-20240626-01	Total/NA	Water	7470A	618589
240-207038-3	EB-001-F-A4-20240626-01	Total/NA	Water	7470A	618589
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	618589
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	618589
240-207038-1 MS	9631-F-A4-20240626-01	Total/NA	Water	7470A	618589
240-207038-1 MSD	9631-F-A4-20240626-01	Total/NA	Water	7470A	618589

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-2	DUP-001-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-3	EB-001-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582
240-207038-1 MS	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-1 MSD	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582

Analysis Batch: 619180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-2	DUP-001-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-3	EB-001-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582
240-207038-1 MS	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-1 MSD	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582

Metals (Continued)

Analysis Batch: 619271 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1 MS	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582
240-207038-1 MSD	9631-F-A4-20240626-01	Total Recoverable	Water	6020B	618582

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total/NA	Water	2320B-1997	
240-207038-2	DUP-001-F-A4-20240626-01	Total/NA	Water	2320B-1997	
240-207038-3	EB-001-F-A4-20240626-01	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total/NA	Water	300.0-1993 R2.1	
240-207038-2	DUP-001-F-A4-20240626-01	Total/NA	Water	300.0-1993 R2.1	
240-207038-3	EB-001-F-A4-20240626-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619394/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-619394/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-207038-1 MS	9631-F-A4-20240626-01	Total/NA	Water	300.0-1993 R2.1	
240-207038-1 MSD	9631-F-A4-20240626-01	Total/NA	Water	300.0-1993 R2.1	

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Prep Batch: 669429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total/NA	Water	PrecSep-21	
240-207038-2	DUP-001-F-A4-20240626-01	Total/NA	Water	PrecSep-21	
240-207038-3	EB-001-F-A4-20240626-01	Total/NA	Water	PrecSep-21	
MB 160-669429/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669429/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-207038-1 MS	9631-F-A4-20240626-01	Total/NA	Water	PrecSep-21	
240-207038-1 MSD	9631-F-A4-20240626-01	Total/NA	Water	PrecSep-21	

Prep Batch: 669430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207038-1	9631-F-A4-20240626-01	Total/NA	Water	PrecSep_0	
240-207038-2	DUP-001-F-A4-20240626-01	Total/NA	Water	PrecSep_0	
240-207038-3	EB-001-F-A4-20240626-01	Total/NA	Water	PrecSep_0	
MB 160-669430/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669430/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-207038-1 MS	9631-F-A4-20240626-01	Total/NA	Water	PrecSep_0	
240-207038-1 MSD	9631-F-A4-20240626-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 9631-F-A4-20240626-01
Lab Sample ID: 240-207038-1

Date Collected: 06/26/24 12:15
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 18:40
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		5	619180	AJC	EET CLE	07/08/24 18:20
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		20	619271	AJC	EET CLE	07/09/24 21:12
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:18
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 11:49
Total/NA	Analysis	300.0-1993 R2.1		50	619394	JMR	EET CLE	07/12/24 13:27
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672949	CMM	EET SL	07/30/24 10:43
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:08
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Client Sample ID: DUP-001-F-A4-20240626-01
Lab Sample ID: 240-207038-2

Date Collected: 06/26/24 00:00
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 18:59
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		20	619180	AJC	EET CLE	07/08/24 18:43
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:27
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 11:54
Total/NA	Analysis	300.0-1993 R2.1		50	619394	JMR	EET CLE	07/12/24 14:27
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672949	CMM	EET SL	07/30/24 10:44
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:08
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Client Sample ID: EB-001-F-A4-20240626-01
Lab Sample ID: 240-207038-3

Date Collected: 06/26/24 16:45
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 19:06
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	619180	AJC	EET CLE	07/08/24 18:46

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: EB-001-F-A4-20240626-01
Lab Sample ID: 240-207038-3

Date Collected: 06/26/24 16:45
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:29
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 11:58
Total/NA	Analysis	300.0-1993 R2.1		1	619394	JMR	EET CLE	07/12/24 15:27
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672949	CMM	EET SL	07/30/24 10:44
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:08
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207038-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
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Chain of Custody Record

Columbus 209

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Client Information	Sampler: Robby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9631-F-A4-20240626-01	6-26-24	1215	G	Water	N		1	1	1	2		
9631-F-A4-20240626-MS-01	6-26-24	1215	G	Water	N		1	1	1	2		
9631-F-A4-20240626-MSD-01	6-26-24	1215	G	Water	N		1	1	1	2		
DUP-001-F-A4-20240626-01	6-26-24	—	G	Water	N		1	1	1	2		
EB-001-F-A4-20240626-01	6-26-24	1645	G	Water	N		1	1	1	2		

240-207038 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6-28-24 / 0945	Eurofins	Ashley Deal	6.28.24 1255	ETA
2	Ashley Deal	6-28-24 1700	ETA	TAMMY ROYER	6-29-24 800	EETNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Eurofins - Cleveland Sample Receipt Form/Narrative Login #:
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by: TAMMY ROYER

Cooler Received on 6-29-24 Opened on 7-1-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp: °C Corrected Cooler Temp: °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen:

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form			
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(2) EC Client Box Other	IR GUN #: 18	3.6	3.6	Wet Ice Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	4.1	4.1	Wet Ice Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	1.3	1.3	Wet Ice Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	3.3	3.3	Wet Ice Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	4.5	4.5	Wet Ice Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	4.6	4.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
☐ See Temperature Excursion Form				

7/1/2024

Login Container Summary Report

240-207038

7/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A4-20240626-01	240-207038-A-1	Plastic 250ml - unpreserved				
9631-F-A4-20240626-01	240-207038-A-1 MS	Plastic 250ml - unpreserved				
9631-F-A4-20240626-01	240-207038-A-1 MSD	Plastic 250ml - unpreserved				
9631-F-A4-20240626-01	240-207038-B-1	Plastic 250ml - unpreserved				
9631-F-A4-20240626-01	240-207038-B-1 MS	Plastic 250ml - unpreserved				
9631-F-A4-20240626-01	240-207038-B-1 MSD	Plastic 250ml - unpreserved				
9631-F-A4-20240626-01	240-207038-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-D-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-E-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-E-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240626-01	240-207038-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20240626-01	240-207038-A-2	Plastic 250ml - unpreserved				
DUP-001-F-A4-20240626-01	240-207038-B-2	Plastic 250ml - unpreserved				
DUP-001-F-A4-20240626-01	240-207038-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A4-20240626-01	240-207038-D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20240626-01	240-207038-E-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240626-01	240-207038-A-3	Plastic 250ml - unpreserved				
EB-001-F-A4-20240626-01	240-207038-B-3	Plastic 250ml - unpreserved				
EB-001-F-A4-20240626-01	240-207038-C-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A4-20240626-01	240-207038-D-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240626-01	240-207038-E-3	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187020.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207038-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/1/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
9631-F-A4-20240626-01 (240-207038-1)	6/26/24	12:15 Eastern		Water			X	X	X	2	
9631-F-A4-20240626-01 (240-207038-1MS)	6/26/24	12:15 Eastern	MS	Water			X	X		2	
9631-F-A4-20240626-01 (240-207038-1MSD)	6/26/24	12:15 Eastern	MSD	Water			X	X		2	
DUP-001-F-A4-20240626-01 (240-207038-2)	6/26/24	Eastern		Water			X	X	X	2	
EB-001-F-A4-20240626-01 (240-207038-3)	6/26/24	16:45 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7/1/24 1630	Company BESTNC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: JUL 02 2024 0900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187020.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207038-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/1/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of Containers	Special Instructions/Note:
			Preservation Code:								
9631-F-A4-20240626-01 (240-207038-1)	6/26/24	12:15 Eastern		Water			X	X	X	2	
9631-F-A4-20240626-01 (240-207038-1MS)	6/26/24	12:15 Eastern	MS	Water			X	X		2	
9631-F-A4-20240626-01 (240-207038-1MSD)	6/26/24	12:15 Eastern	MSD	Water			X	X		2	
DUP-001-F-A4-20240626-01 (240-207038-2)	6/26/24	Eastern		Water			X	X	X	2	
EB-001-F-A4-20240626-01 (240-207038-3)	6/26/24	16:45 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7/24 1630	Company BETNC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: JUL 03 2024 0915	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207038-1

Login Number: 207038
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/03/24 12:59 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 7/31/2024 3:28:54 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207039-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
7/31/2024 3:28:54 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207039-1 Eurofins Cleveland

Job Narrative
240-207039-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 6/29/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.3°C, 3.3°C, 3.6°C, 4.5°C, 4.6°C and 9.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207039-1	2022-02-F-A4-20240627-01	Water	06/27/24 14:47	06/29/24 08:00
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Water	06/27/24 15:30	06/29/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-02-F-A4-20240627-01
Lab Sample ID: 240-207039-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.95	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	450		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	18000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	44	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	5800		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	95		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1300000		2000	660	ug/L	2		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	2.2		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: FIELDBLANK-001-F-A4-20240627-01
Lab Sample ID: 240-207039-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	8.7	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Sodium	450	J	1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	3.6	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.6	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207039-1

Client Sample ID: 2022-02-F-A4-20240627-01

Date Collected: 06/27/24 14:47
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207039-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.95**	**J**	2.0	0.57	ug/L		07/02/24 14:00	07/05/24 19:09	1
Arsenic	**2.6**	**J**	5.0	0.75	ug/L		07/02/24 14:00	07/05/24 19:09	1
Barium	**450**		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 19:09	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 19:09	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 19:09	1
Calcium	**18000**		1000	250	ug/L		07/02/24 14:00	07/05/24 19:09	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 19:09	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 19:09	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 19:09	1
Lithium	**44**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 19:09	1
Magnesium	**5800**		1000	61	ug/L		07/02/24 14:00	07/05/24 19:09	1
Molybdenum	**95**		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 19:09	1
Potassium	**3500**		1000	220	ug/L		07/02/24 14:00	07/05/24 19:09	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 19:09	1
Sodium	**1300000**		2000	660	ug/L		07/02/24 14:00	07/08/24 18:49	2
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/09/24 21:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**270**		5.0	2.6	mg/L			07/08/24 12:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**270**		5.0	2.6	mg/L			07/08/24 12:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 12:04	1
Fluoride (EPA 300.0-1993 R2.1)	**2.2**		0.25	0.12	mg/L			07/13/24 02:32	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.463**		0.129	0.136	1.00	0.126	pCi/L	07/05/24 07:45	07/30/24 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.396	U	0.320	0.322	1.00	0.492	pCi/L	07/05/24 07:52	07/19/24 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:09*	*1*
Y Carrier	*80.0*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:09*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207039-1

Client Sample ID: 2022-02-F-A4-20240627-01
Date Collected: 06/27/24 14:47
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207039-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.859		0.345	0.350	5.00	0.492	pCi/L		07/31/24 14:07	1

Client Sample ID: FIELDBLANK-001-F-A4-20240627-01

Date Collected: 06/27/24 15:30
Date Received: 06/29/24 08:00

Lab Sample ID: 240-207039-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 19:11	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 19:11	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 19:11	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 19:11	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 19:11	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 19:11	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 19:11	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 19:11	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 19:11	1
Lithium	**8.7**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 19:11	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 19:11	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 19:11	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 19:11	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 19:11	1
Sodium	**450**	**J**	1000	330	ug/L		07/02/24 14:00	07/08/24 18:51	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 18:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**3.6**	**J**	5.0	2.6	mg/L			07/08/24 12:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**3.6**	**J**	5.0	2.6	mg/L			07/08/24 12:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 12:10	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			07/13/24 02:52	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0177	U	0.0623	0.0623	1.00	0.131	pCi/L	07/05/24 07:45	07/30/24 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0724	U	0.259	0.259	1.00	0.472	pCi/L	07/05/24 07:52	07/19/24 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:09*	*1*
Y Carrier	*82.6*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:09*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELDBLANK-001-F-A4-20240627-01
Lab Sample ID: 240-207039-2
Date Collected: 06/27/24 15:30
Matrix: Water
Date Received: 06/29/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0547	U	0.266	0.266	5.00	0.472	pCi/L		07/31/24 14:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207039-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207039-1	2022-02-F-A4-20240627-01	98.3
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	95.5
LCS 160-669429/2-A	Lab Control Sample	95.3
MB 160-669429/1-A	Method Blank	95.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207039-1	2022-02-F-A4-20240627-01	98.3	80.0
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	95.5	82.6
LCS 160-669430/2-A	Lab Control Sample	95.3	81.1
MB 160-669430/1-A	Method Blank	95.3	80.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:35	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:35	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:35	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 18:35	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lithium	1.98	J	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:35	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 18:35	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:35	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:35	1

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/08/24 12:10	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 12:10	1

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.4		ug/L		98	80 - 120
Arsenic	1000	950		ug/L		95	80 - 120
Barium	1000	946		ug/L		95	80 - 120
Beryllium	500	441		ug/L		88	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24000		ug/L		96	80 - 120
Chromium	500	492		ug/L		98	80 - 120
Cobalt	500	487		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	525		ug/L		105	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	911		ug/L		91	80 - 120

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	1000	966		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-618589/1-A
Matrix: Water
Analysis Batch: 618959

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:15	1

Lab Sample ID: LCS 240-618589/2-A
Matrix: Water
Analysis Batch: 618959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.87		ug/L		97	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/3
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	270		mg/L		96	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619747/3
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 16:01	1

Lab Sample ID: LCS 240-619747/4
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.66		mg/L		107	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669429/1-A
Matrix: Water
Analysis Batch: 672930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669429

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008971	U	0.0386	0.0386	1.00	0.0893	pCi/L	07/05/24 07:45	07/30/24 10:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:22*	*1*

Lab Sample ID: LCS 160-669429/2-A
Matrix: Water
Analysis Batch: 672949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669429

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.40		1.08	1.00	0.0904	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669430/1-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669430

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5045	U	0.358	0.361	1.00	0.541	pCi/L	07/05/24 07:52	07/19/24 12:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:10*	*1*
Y Carrier	*80.0*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:10*	*1*

Lab Sample ID: LCS 160-669430/2-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669430

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.75	10.27		1.38	1.00	0.499	pCi/L	117	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

Metals

Prep Batch: 618582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total Recoverable	Water	3005A	
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total Recoverable	Water	3005A	
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 618589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total/NA	Water	7470A	
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total/NA	Water	7470A	
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 618959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total/NA	Water	7470A	618589
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total/NA	Water	7470A	618589
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	618589
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	618589

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total Recoverable	Water	6020B	618582
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Analysis Batch: 619180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total Recoverable	Water	6020B	618582
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total Recoverable	Water	6020B	618582

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total/NA	Water	2320B-1997	
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total/NA	Water	300.0-1993 R2.1	
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619747/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	

General Chemistry (Continued)

Analysis Batch: 619747 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-619747/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 669429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total/NA	Water	PrecSep-21	
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total/NA	Water	PrecSep-21	
MB 160-669429/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669429/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 669430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207039-1	2022-02-F-A4-20240627-01	Total/NA	Water	PrecSep_0	
240-207039-2	FIELDBLANK-001-F-A4-20240627-01	Total/NA	Water	PrecSep_0	
MB 160-669430/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669430/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-02-F-A4-20240627-01
Lab Sample ID: 240-207039-1

Date Collected: 06/27/24 14:47
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 19:09
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		2	619180	AJC	EET CLE	07/08/24 18:49
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 21:27
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:34
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 12:04
Total/NA	Analysis	300.0-1993 R2.1		5	619747	JMR	EET CLE	07/13/24 02:32
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672949	CMM	EET SL	07/30/24 10:42
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:09
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Client Sample ID: FIELDBLANK-001-F-A4-20240627-01
Lab Sample ID: 240-207039-2

Date Collected: 06/27/24 15:30
Matrix: Water
Date Received: 06/29/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 19:11
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	619180	AJC	EET CLE	07/08/24 18:51
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:35
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 12:10
Total/NA	Analysis	300.0-1993 R2.1		1	619747	JMR	EET CLE	07/13/24 02:52
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672949	CMM	EET SL	07/30/24 10:42
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:09
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207039-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins | Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-02-F-A4-20240627-01	6-27-24	1447	G	Water	N		1	1	1	2		
Field Blank-001-F-A4-20240627-01	6-27-24	1530	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-207039 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Bobby Casto	6-28-24 / 0945	KEMRON	Ashley Deal	6-28-24 12:55	ETA
2	Ashley Deal	6-28-24 1700	ETA	TAMMY ROYER	6-29-24 800	ETA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # 240039
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by: TAMMY ROYER

Cooler Received on 6-29-24 Opened on 7-1-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen:

Login # : 207039

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 18	3.6	3.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	9.1	9.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	1.3	1.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	3.3	3.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	4.5	4.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	4.6	4.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

7/1/2024

Login Container Summary Report

240-207039

7/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-02-F-A4-20240627-01	240-207039-A-1	Plastic 250ml - unpreserved				
2022-02-F-A4-20240627-01	240-207039-B-1	Plastic 250ml - unpreserved				
2022-02-F-A4-20240627-01	240-207039-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-02-F-A4-20240627-01	240-207039-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-02-F-A4-20240627-01	240-207039-E-1	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-A4-20240627-01	240-207039-A-2	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A4-20240627-01	240-207039-B-2	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A4-20240627-01	240-207039-C-2	Plastic 500ml - with Nitric Acid	<2			
FIELDBLANK-001-F-A4-20240627-01	240-207039-D-2	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-A4-20240627-01	240-207039-E-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187020.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207039-1
Address: 13715 Rider Trail North,	Due Date Requested: 8/1/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
2022-02-F-A4-20240627-01 (240-207039-1)	6/27/24	14:47 Eastern		Water			X	X	X		
FIELDBLANK-001-F-A4-20240627-01 (240-207039-2)	6/27/24	15:30 Eastern		Water			X	X	X		

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/24 1630	~~EEN~~ TNC			
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: JUL 02 2024 0900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187020.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207039-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/1/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Total Number of Containers	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Special Instructions/Note:
2022-02-F-A4-20240627-01 (240-207039-1)	6/27/24	14:47 Eastern		Water	2	X	X	X	
FIELDBLANK-001-F-A4-20240627-01 (240-207039-2)	6/27/24	15:30 Eastern		Water	2	X	X	X	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 7/24 1630	Company EEINC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: JUL 03 2024 0915	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207039-1

Login Number: 207039
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/03/24 12:59 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/11/2024 8:55:22 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207040-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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7/11/2024 8:55:22 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207040-1
Project/Site: Federal CCR Wells - App III

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207040-1 — Eurofins Cleveland

Job Narrative
240-207040-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/1/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 1.3°C, 3.3°C, 3.6°C, 4.5°C, 4.6°C and 9.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207040-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207040-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207040-1	2022-02-F-A3-20240627-01	Water	06/27/24 14:47	07/01/24 08:00
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Water	06/27/24 15:30	07/01/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207040-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-02-F-A3-20240627-01
Lab Sample ID: 240-207040-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Calcium	18000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	5700		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1400000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2000		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.2		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	130		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3500		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELDBLANK-001-F-A3-20240627-01
Lab Sample ID: 240-207040-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207040-1

Client Sample ID: 2022-02-F-A3-20240627-01

Lab Sample ID: 240-207040-1

Date Collected: 06/27/24 14:47

Matrix: Water

Date Received: 07/01/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		07/02/24 14:00	07/04/24 08:48	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	18000		1000	250	ug/L		07/02/24 14:00	07/03/24 21:17	1
Magnesium	5700		1000	61	ug/L		07/02/24 14:00	07/03/24 21:17	1
Potassium	3900		1000	220	ug/L		07/02/24 14:00	07/03/24 21:17	1
Sodium	1400000		5000	1600	ug/L		07/02/24 14:00	07/05/24 12:18	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	270		5.0	2.6	mg/L			07/08/24 12:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			07/08/24 12:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 12:14	1
Chloride (EPA 300.0)	2000		20	2.6	mg/L			07/10/24 21:44	20
Fluoride (EPA 300.0)	2.2		0.25	0.12	mg/L			07/10/24 21:24	5
Sulfate (EPA 300.0)	130		5.0	1.7	mg/L			07/10/24 21:24	5
Total Dissolved Solids (SM 2540C)	3500		50	39	mg/L			07/03/24 08:30	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207040-1

Client Sample ID: FIELDBLANK-001-F-A3-20240627-01

Lab Sample ID: 240-207040-2

Date Collected: 06/27/24 15:30

Matrix: Water

Date Received: 07/01/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 08:52	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/03/24 21:19	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/03/24 21:19	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 21:19	1
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 12:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 12:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 12:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 12:20	1
Chloride (EPA 300.0)	ND	F2 F1	1.0	0.13	mg/L			07/10/24 20:24	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			07/10/24 20:24	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			07/10/24 20:24	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			07/03/24 11:44	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-618610/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 618786
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 05:31	1

Lab Sample ID: LCS 240-618610/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 618786
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1040		ug/L		104	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618610/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 618830
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/03/24 20:13	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/03/24 20:13	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 20:13	1

Lab Sample ID: MB 240-618610/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 618964
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 11:23	1

Lab Sample ID: LCS 240-618610/3-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 618830
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24300		ug/L		97	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120

Lab Sample ID: LCS 240-618610/3-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 618964
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	25300		ug/L		101	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/3
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	270		mg/L		96	86 - 123

Lab Sample ID: 240-207040-2 DU
Matrix: Water
Analysis Batch: 619189

Client Sample ID: FIELDBLANK-001-F-A3-20240627-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	ND		ND		mg/L		NC	20
Bicarbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619389/3
Matrix: Water
Analysis Batch: 619389

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/10/24 19:44	1
Fluoride	ND		0.050	0.024	mg/L			07/10/24 19:44	1
Sulfate	ND		1.0	0.35	mg/L			07/10/24 19:44	1

Lab Sample ID: LCS 240-619389/4
Matrix: Water
Analysis Batch: 619389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.4		mg/L		103	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Lab Sample ID: 240-207040-2 MS
Matrix: Water
Analysis Batch: 619389

Client Sample ID: FIELDBLANK-001-F-A3-20240627-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND	F2 F1	50.0	62.2	F1	mg/L		124	80 - 120
Fluoride	ND		2.50	2.46		mg/L		98	80 - 120
Sulfate	ND		50.0	50.3		mg/L		101	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-207040-2 MSD
Matrix: Water
Analysis Batch: 619389

Client Sample ID: FIELDBLANK-001-F-A3-20240627-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND	F2 F1	50.0	50.0	F2	mg/L		100	80 - 120	22	15
Fluoride	ND		2.50	2.46		mg/L		98	80 - 120	0	15
Sulfate	ND		50.0	49.7		mg/L		99	80 - 120	1	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-618699/1
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 08:30	1

Lab Sample ID: LCS 240-618699/2
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	442	410		mg/L		93	80 - 120

Lab Sample ID: MB 240-618775/1
Matrix: Water
Analysis Batch: 618775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 11:44	1

Lab Sample ID: LCS 240-618775/2
Matrix: Water
Analysis Batch: 618775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	442	409		mg/L		93	80 - 120

Metals

Prep Batch: 618610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total Recoverable	Water	3005A	
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total Recoverable	Water	3005A	
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 618786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total Recoverable	Water	6010D	618610
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total Recoverable	Water	6010D	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6010D	618610
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	6010D	618610

Analysis Batch: 618830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total Recoverable	Water	6020B	618610
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total Recoverable	Water	6020B	618610
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610

General Chemistry

Analysis Batch: 618699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total/NA	Water	SM 2540C	
MB 240-618699/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618699/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 618775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total/NA	Water	SM 2540C	
MB 240-618775/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618775/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total/NA	Water	2320B-1997	
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-207040-2 DU	FIELDBLANK-001-F-A3-20240627-01	Total/NA	Water	2320B-1997	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207040-1

General Chemistry

Analysis Batch: 619389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207040-1	2022-02-F-A3-20240627-01	Total/NA	Water	300.0	
240-207040-1	2022-02-F-A3-20240627-01	Total/NA	Water	300.0	
240-207040-2	FIELDBLANK-001-F-A3-20240627-01	Total/NA	Water	300.0	
MB 240-619389/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619389/4	Lab Control Sample	Total/NA	Water	300.0	
240-207040-2 MS	FIELDBLANK-001-F-A3-20240627-01	Total/NA	Water	300.0	
240-207040-2 MSD	FIELDBLANK-001-F-A3-20240627-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207040-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-02-F-A3-20240627-01
Lab Sample ID: 240-207040-1

Date Collected: 06/27/24 14:47
Matrix: Water
Date Received: 07/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 08:48
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:17
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		5	618964	AJC	EET CLE	07/05/24 12:18
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 12:14
Total/NA	Analysis	300.0		5	619389	JMR	EET CLE	07/10/24 21:24
Total/NA	Analysis	300.0		20	619389	JMR	EET CLE	07/10/24 21:44
Total/NA	Analysis	SM 2540C		1	618699	UWU2	EET CLE	07/03/24 08:30

Client Sample ID: FIELDBLANK-001-F-A3-20240627-01
Lab Sample ID: 240-207040-2

Date Collected: 06/27/24 15:30
Matrix: Water
Date Received: 07/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 08:52
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:19
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 12:21
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 12:20
Total/NA	Analysis	300.0		1	619389	JMR	EET CLE	07/10/24 20:24
Total/NA	Analysis	SM 2540C		1	618775	UWU2	EET CLE	07/03/24 11:44

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207040-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 209

eurofins | Environment Testing America

Client Information	Sampler: Bobby Cote	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4385	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2021-02-F-A3-20240627-01	6-27-24	1447	G	W	N		1	1	1		
Field Blank-01-F-A3-20240627-01	6-27-24	1530	G	W	N		1	1	1		

240-207040 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Cote	6-28-24 1094S	Kenlon	Ashley Deal	6/28/24 12:55	ESA
2	Ashley Deal	6-28-24 1700	ESA	TAMMY ROYER	6-29-24 800	ESA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins = Cleveland Sample Receipt Form/Narrative Login # 240626410
Barberton Facility

Client LightStone Site Name

Cooler Received on 6-29-24 Opened on 7-1-24

Cooler unpacked by: TAMMY ROYER

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 18 (CF 0.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Each	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container.

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : 207040

Eurofins : Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(1) EC Client Box Other	IR GUN #: 18	3.6	3.6	(Wet Ice) Blue Ice Dry Ice Water None
(2) EC Client Box Other	IR GUN #: 18	4.1	4.1	Wet Ice Blue Ice Dry Ice Water (None)
(3) EC Client Box Other	IR GUN #: 18	1.3	1.3	(Wet Ice) Blue Ice Dry Ice Water None
(4) EC Client Box Other	IR GUN #: 18	3.3	3.3	(Wet Ice) Blue Ice Dry Ice Water None
(5) EC Client Box Other	IR GUN #: 18	4.5	4.5	(Wet Ice) Blue Ice Dry Ice Water None
(6) EC Client Box Other	IR GUN #: 18	4.6	4.6	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

7/1/2024

Login Container Summary Report

240-207040

7/11/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-02-F-A3-20240627-01	240-207040-A-1	Plastic 250ml - unpreserved				
2022-02-F-A3-20240627-01	240-207040-B-1	Plastic 250ml - unpreserved				
2022-02-F-A3-20240627-01	240-207040-C-1	Plastic 500ml - with Nitric Acid	<2			
FIELDBLANK-001-F-A3-20240627-01	240-207040-A-2	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A3-20240627-01	240-207040-B-2	Plastic 250ml - unpreserved				
FIELDBLANK-001-F-A3-20240627-01	240-207040-C-2	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 7/31/2024 3:30:21 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207096-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
7/31/2024 3:30:21 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

Table of Contents

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207096-1 — Eurofins Cleveland

Job Narrative
240-207096-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/1/2024 2:25 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207096-1	2022-05-F-A4-20240628-01	Water	06/28/24 12:15	07/01/24 14:25
240-207096-2	EB-001-F-A4-20240628-01	Water	06/28/24 12:45	07/01/24 14:25

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Client Sample ID: 2022-05-F-A4-20240628-01

Lab Sample ID: 240-207096-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	5.3		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	1900		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	61000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.65	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	64	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	20000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	37		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2300000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.6		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: EB-001-F-A4-20240628-01

Lab Sample ID: 240-207096-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	4.2	J B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Sodium	350	J	1000	330	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Client Sample ID: 2022-05-F-A4-20240628-01

Date Collected: 06/28/24 12:15
Date Received: 07/01/24 14:25

Lab Sample ID: 240-207096-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 19:24	1
Arsenic	**5.3**		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 19:24	1
Barium	**1900**		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 19:24	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 19:24	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 19:24	1
Calcium	**61000**		1000	250	ug/L		07/02/24 14:00	07/05/24 19:24	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 19:24	1
Cobalt	**0.65**	**J**	1.0	0.19	ug/L		07/02/24 14:00	07/05/24 19:24	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 19:24	1
Lithium	**64**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 19:24	1
Magnesium	**20000**		1000	61	ug/L		07/02/24 14:00	07/05/24 19:24	1
Molybdenum	**37**		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 19:24	1
Potassium	**5000**		1000	220	ug/L		07/02/24 14:00	07/05/24 19:24	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 19:24	1
Sodium	**2300000**		5000	1600	ug/L		07/02/24 14:00	07/08/24 18:54	5
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/09/24 21:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**270**		5.0	2.6	mg/L			07/08/24 13:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**270**		5.0	2.6	mg/L			07/08/24 13:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:16	1
Fluoride (EPA 300.0-1993 R2.1)	**1.6**		0.25	0.12	mg/L			07/13/24 03:51	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**2.31**		0.257	0.331	1.00	0.112	pCi/L	07/05/24 07:45	07/30/24 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.28**		0.546	0.585	1.00	0.541	pCi/L	07/05/24 07:52	07/19/24 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.8*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:11*	*1*
Y Carrier	*80.4*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:11*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Client Sample ID: 2022-05-F-A4-20240628-01
Date Collected: 06/28/24 12:15
Date Received: 07/01/24 14:25

Lab Sample ID: 240-207096-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.59		0.603	0.672	5.00	0.541	pCi/L		07/31/24 14:07	1

Client Sample ID: EB-001-F-A4-20240628-01
Lab Sample ID: 240-207096-2
Date Collected: 06/28/24 12:45
Matrix: Water
Date Received: 07/01/24 14:25

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 19:27	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 19:27	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 19:27	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 19:27	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 19:27	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 19:27	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 19:27	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 19:27	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 19:27	1
Lithium	**4.2**	**J B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 19:27	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 19:27	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 19:27	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 19:27	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 19:27	1
Sodium	**350**	**J**	1000	330	ug/L		07/02/24 14:00	07/08/24 18:56	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 18:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:31	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:31	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			07/13/24 04:11	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00144	U	0.0522	0.0522	1.00	0.107	pCi/L	07/05/24 07:45	07/30/24 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.280	U	0.369	0.369	1.00	0.615	pCi/L	07/05/24 07:52	07/19/24 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:12*	*1*
Y Carrier	*81.5*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:12*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Client Sample ID: EB-001-F-A4-20240628-01
Date Collected: 06/28/24 12:45
Date Received: 07/01/24 14:25

Lab Sample ID: 240-207096-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.282	U	0.373	0.373	5.00	0.615	pCi/L		07/31/24 14:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207096-1	2022-05-F-A4-20240628-01	91.8
240-207096-2	EB-001-F-A4-20240628-01	88.1
LCS 160-669429/2-A	Lab Control Sample	95.3
MB 160-669429/1-A	Method Blank	95.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207096-1	2022-05-F-A4-20240628-01	91.8	80.4
240-207096-2	EB-001-F-A4-20240628-01	88.1	81.5
LCS 160-669430/2-A	Lab Control Sample	95.3	81.1
MB 160-669430/1-A	Method Blank	95.3	80.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:35	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:35	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:35	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 18:35	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lithium	1.98	J	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:35	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 18:35	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:35	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:35	1

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/08/24 12:10	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 12:10	1

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.4		ug/L		98	80 - 120
Arsenic	1000	950		ug/L		95	80 - 120
Barium	1000	946		ug/L		95	80 - 120
Beryllium	500	441		ug/L		88	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24000		ug/L		96	80 - 120
Chromium	500	492		ug/L		98	80 - 120
Cobalt	500	487		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	525		ug/L		105	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	911		ug/L		91	80 - 120

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Thallium			1000	966		ug/L		97	80 - 120		

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-618589/1-A
Matrix: Water
Analysis Batch: 618959

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:15	1

Lab Sample ID: LCS 240-618589/2-A
Matrix: Water
Analysis Batch: 618959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618589

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			5.00	4.87		ug/L		97	80 - 120		

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/29
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	273		mg/L		98	86 - 123		

Lab Sample ID: LCS 240-619189/3
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	270		mg/L		96	86 - 123		

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: 240-207096-2 DU
Matrix: Water
Analysis Batch: 619189

Client Sample ID: EB-001-F-A4-20240628-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	ND		ND		mg/L		NC	20
Bicarbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619747/3
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 16:01	1

Lab Sample ID: LCS 240-619747/4
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.66		mg/L		107	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669429/1-A
Matrix: Water
Analysis Batch: 672930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669429

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008971	U	0.0386	0.0386	1.00	0.0893	pCi/L	07/05/24 07:45	07/30/24 10:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:22*	*1*

Lab Sample ID: LCS 160-669429/2-A
Matrix: Water
Analysis Batch: 672949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669429

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.40		1.08	1.00	0.0904	pCi/L	92	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669430/1-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669430

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5045	U	0.358	0.361	1.00	0.541	pCi/L	07/05/24 07:52	07/19/24 12:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:10*	*1*
Y Carrier	*80.0*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:10*	*1*

Lab Sample ID: LCS 160-669430/2-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669430

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.75	10.27		1.38	1.00	0.499	pCi/L	117	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207096-1

Metals

Prep Batch: 618582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total Recoverable	Water	3005A	
240-207096-2	EB-001-F-A4-20240628-01	Total Recoverable	Water	3005A	
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 618589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total/NA	Water	7470A	
240-207096-2	EB-001-F-A4-20240628-01	Total/NA	Water	7470A	
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 618959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total/NA	Water	7470A	618589
240-207096-2	EB-001-F-A4-20240628-01	Total/NA	Water	7470A	618589
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	618589
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	618589

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total Recoverable	Water	6020B	618582
240-207096-2	EB-001-F-A4-20240628-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Analysis Batch: 619180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total Recoverable	Water	6020B	618582
240-207096-2	EB-001-F-A4-20240628-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total Recoverable	Water	6020B	618582

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total/NA	Water	2320B-1997	
240-207096-2	EB-001-F-A4-20240628-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/29	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-619189/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-207096-2 DU	EB-001-F-A4-20240628-01	Total/NA	Water	2320B-1997	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

General Chemistry

Analysis Batch: 619747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total/NA	Water	300.0-1993 R2.1	
240-207096-2	EB-001-F-A4-20240628-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619747/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-619747/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 669429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total/NA	Water	PrecSep-21	
240-207096-2	EB-001-F-A4-20240628-01	Total/NA	Water	PrecSep-21	
MB 160-669429/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669429/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 669430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207096-1	2022-05-F-A4-20240628-01	Total/NA	Water	PrecSep_0	
240-207096-2	EB-001-F-A4-20240628-01	Total/NA	Water	PrecSep_0	
MB 160-669430/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669430/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-05-F-A4-20240628-01
Lab Sample ID: 240-207096-1

Date Collected: 06/28/24 12:15
Matrix: Water
Date Received: 07/01/24 14:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 19:24
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		5	619180	AJC	EET CLE	07/08/24 18:54
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 21:30
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:44
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 13:16
Total/NA	Analysis	300.0-1993 R2.1		5	619747	JMR	EET CLE	07/13/24 03:51
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672951	CMM	EET SL	07/30/24 10:29
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:11
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Client Sample ID: EB-001-F-A4-20240628-01
Lab Sample ID: 240-207096-2

Date Collected: 06/28/24 12:45
Matrix: Water
Date Received: 07/01/24 14:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 19:27
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	619180	AJC	EET CLE	07/08/24 18:56
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:46
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 13:31
Total/NA	Analysis	300.0-1993 R2.1		1	619747	JMR	EET CLE	07/13/24 04:11
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672951	CMM	EET SL	07/30/24 10:29
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207096-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Cato	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-05-F-A4-20240628-01	6-28-24	1245	G	Water	N		1	1	1	2		
EB-001-F-A4-20240628-01	6-28-24	1245	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-207096 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Cato	7-1-24 / 0940	Kemper	Tom Edwards	7-1-24 11:00 AM	Auto Options
2	Tom Edwards	7-1-24 1425 MS	Auto Options	J. Morosin	7/1/24 1925	GBTE
3		Date/Time:	Company	Received by:	Date/Time: 6/1/24	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** 207096
Barberton Facility

Client Lightstone - GAVIN Site Name

Cooler unpacked by: EWR

Cooler Received on 7-1-24 Opened on 7-1-24

FedEx, 1st Grd Exp UPS FAS Waypoint (Client Drop Off) Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +0.1 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.7 °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	Yes (No)
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No (NA)
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	Yes No (NA)
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12.	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC442471
14	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes No (NA)
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes (No)
17	Was a LL Hg or Me Hg trip blank present?	Yes (No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

7/1/2024

Login Container Summary Report

240-207096

7/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A4-20240628-01	240-207096-A-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20240628-01	240-207096-B-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20240628-01	240-207096-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-A4-20240628-01	240-207096-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-A4-20240628-01	240-207096-E-1	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240628-01	240-207096-A-2	Plastic 250ml - unpreserved				
EB-001-F-A4-20240628-01	240-207096-B-2	Plastic 250ml - unpreserved				
EB-001-F-A4-20240628-01	240-207096-C-2	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A4-20240628-01	240-207096-D-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240628-01	240-207096-E-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187025.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207096-1
Address: 13715 Rider Trail North,	Due Date Requested: 7/15/2024	Analysis Requested		Preservation Codes:
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Special Instructions/Note:
2022-05-F-A4-20240628-01 (240-207096-1)	6/28/24	12:15 Eastern		Water	X	X	X	
EB-001-F-A4-20240628-01 (240-207096-2)	6/28/24	12:45 Eastern		Water	X	X	X	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 7-12-24 1630	Company BEINC	Received by: M. Pinette	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: JUL 02 2024 0900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

7/31/2024

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187025.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207096-1
Address: 13715 Rider Trail North,	Due Date Requested: 7/15/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228										Total Number of containers	Special Instructions/Note:
2022-05-F-A4-20240628-01 (240-207096-1)	6/28/24	12:15 Eastern		Water			X	X	X										2	
EB-001-F-A4-20240628-01 (240-207096-2)	6/28/24	12:45 Eastern		Water			X	X	X										2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7-1-24 1630	Company EETNC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: JUL 0 3 2024 0915	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207096-1

Login Number: 207096
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/02/24 01:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 7/31/2024 3:30:53 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207098-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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7/31/2024 3:30:53 PM

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207098-1 — Eurofins Cleveland

Job Narrative
240-207098-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/1/2024 2:25 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

Metals
Method 6020B - Total Recoverable: The following sample was diluted due to the nature of the sample matrix: 2022-03-F-A4-20240628-01 (240-207098-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-03-F-A4-20240628-01 (240-207098-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207098-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207098-1	2022-03-F-A4-20240628-01	Water	06/28/24 13:57	07/01/24 14:25

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207098-1

Client Sample ID: 2022-03-F-A4-20240628-01

Lab Sample ID: 240-207098-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	750		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	410000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.5		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	720	B	8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	150000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	180		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.1	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	7500000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207098-1

Client Sample ID: 2022-03-F-A4-20240628-01

Date Collected: 06/28/24 13:57
Date Received: 07/01/24 14:25

Lab Sample ID: 240-207098-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 19:29	1
Arsenic	**1.4**	**J**	5.0	0.75	ug/L		07/02/24 14:00	07/05/24 19:29	1
Barium	**750**		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 19:29	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 19:29	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 19:29	1
Calcium	**410000**		1000	250	ug/L		07/02/24 14:00	07/05/24 19:29	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 19:29	1
Cobalt	**1.5**		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 19:29	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 19:29	1
Lithium	**720**	**B**	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 19:29	1
Magnesium	**150000**		1000	61	ug/L		07/02/24 14:00	07/05/24 19:29	1
Molybdenum	**180**		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 19:29	1
Potassium	**23000**		1000	220	ug/L		07/02/24 14:00	07/05/24 19:29	1
Selenium	**1.1**	**J**	5.0	0.89	ug/L		07/02/24 14:00	07/05/24 19:29	1
Sodium	**7500000**		10000	3300	ug/L		07/02/24 14:00	07/08/24 18:59	10
Thallium	ND		10	2.0	ug/L		07/02/24 14:00	07/08/24 18:59	10

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**150**		5.0	2.6	mg/L			07/08/24 13:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**150**		5.0	2.6	mg/L			07/08/24 13:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:38	1
Fluoride (EPA 300.0-1993 R2.1)	ND		2.5	1.2	mg/L			07/12/24 16:47	50

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.52**		0.212	0.252	1.00	0.104	pCi/L	07/05/24 07:45	07/30/24 10:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.3*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.94**		0.630	0.686	1.00	0.642	pCi/L	07/05/24 07:52	07/19/24 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:12*	*1*
Y Carrier	*81.5*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:12*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-03-F-A4-20240628-01
Lab Sample ID: 240-207098-1
Date Collected: 06/28/24 13:57
Matrix: Water
Date Received: 07/01/24 14:25

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.46		0.665	0.731	5.00	0.642	pCi/L		07/31/24 14:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207098-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207098-1	2022-03-F-A4-20240628-01	91.3
LCS 160-669429/2-A	Lab Control Sample	95.3
MB 160-669429/1-A	Method Blank	95.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207098-1	2022-03-F-A4-20240628-01	91.3	81.5
LCS 160-669430/2-A	Lab Control Sample	95.3	81.1
MB 160-669430/1-A	Method Blank	95.3	80.0

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/02/24 14:00	07/05/24 18:35	1
Arsenic	ND		5.0	0.75	ug/L		07/02/24 14:00	07/05/24 18:35	1
Barium	ND		5.0	2.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Beryllium	ND		1.0	0.62	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cadmium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/05/24 18:35	1
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/05/24 18:35	1
Chromium	ND		5.0	1.2	ug/L		07/02/24 14:00	07/05/24 18:35	1
Cobalt	ND		1.0	0.19	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lead	ND		1.0	0.45	ug/L		07/02/24 14:00	07/05/24 18:35	1
Lithium	1.98	J	8.0	1.7	ug/L		07/02/24 14:00	07/05/24 18:35	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/05/24 18:35	1
Molybdenum	ND		5.0	1.1	ug/L		07/02/24 14:00	07/05/24 18:35	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/05/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		07/02/24 14:00	07/05/24 18:35	1

Lab Sample ID: MB 240-618582/1-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/08/24 12:10	1
Thallium	ND		1.0	0.20	ug/L		07/02/24 14:00	07/08/24 12:10	1

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.4		ug/L		98	80 - 120
Arsenic	1000	950		ug/L		95	80 - 120
Barium	1000	946		ug/L		95	80 - 120
Beryllium	500	441		ug/L		88	80 - 120
Cadmium	500	490		ug/L		98	80 - 120
Calcium	25000	24000		ug/L		96	80 - 120
Chromium	500	492		ug/L		98	80 - 120
Cobalt	500	487		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	525		ug/L		105	80 - 120
Magnesium	25000	24500		ug/L		98	80 - 120
Molybdenum	500	471		ug/L		94	80 - 120
Potassium	25000	24600		ug/L		99	80 - 120
Selenium	1000	911		ug/L		91	80 - 120

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	24500		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-618582/2-A
Matrix: Water
Analysis Batch: 619180

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618582

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	1000	966		ug/L		97	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-618589/1-A
Matrix: Water
Analysis Batch: 618959

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/02/24 14:00	07/05/24 09:15	1

Lab Sample ID: LCS 240-618589/2-A
Matrix: Water
Analysis Batch: 618959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.87		ug/L		97	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/29
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619394/3
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 07:26	1

Lab Sample ID: LCS 240-619394/4
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.58		mg/L		103	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669429/1-A
Matrix: Water
Analysis Batch: 672930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669429

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008971	U	0.0386	0.0386	1.00	0.0893	pCi/L	07/05/24 07:45	07/30/24 10:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*07/05/24 07:45*	*07/30/24 10:22*	*1*

Lab Sample ID: LCS 160-669429/2-A
Matrix: Water
Analysis Batch: 672949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669429

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.40		1.08	1.00	0.0904	pCi/L	92	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669430/1-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669430

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5045	U	0.358	0.361	1.00	0.541	pCi/L	07/05/24 07:52	07/19/24 12:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:10*	*1*
Y Carrier	*80.0*		*30 - 110*	*07/05/24 07:52*	*07/19/24 12:10*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-669430/2-A
Matrix: Water
Analysis Batch: 671467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669430

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.75	10.27		1.38	1.00	0.499	pCi/L	117	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*
Y Carrier	*81.1*		*30 - 110*

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Metals

Prep Batch: 618582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total Recoverable	Water	3005A	
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 618589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total/NA	Water	7470A	
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 618959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total/NA	Water	7470A	618589
MB 240-618589/1-A	Method Blank	Total/NA	Water	7470A	618589
LCS 240-618589/2-A	Lab Control Sample	Total/NA	Water	7470A	618589

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

Analysis Batch: 619180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total Recoverable	Water	6020B	618582
MB 240-618582/1-A	Method Blank	Total Recoverable	Water	6020B	618582
LCS 240-618582/2-A	Lab Control Sample	Total Recoverable	Water	6020B	618582

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619394/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-619394/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 669429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total/NA	Water	PrecSep-21	
MB 160-669429/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669429/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Rad

Prep Batch: 669430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207098-1	2022-03-F-A4-20240628-01	Total/NA	Water	PrecSep_0	
MB 160-669430/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669430/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-03-F-A4-20240628-01
Lab Sample ID: 240-207098-1

Date Collected: 06/28/24 13:57
Matrix: Water
Date Received: 07/01/24 14:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 19:29
Total Recoverable	Prep	3005A			618582	S4FJ	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		10	619180	AJC	EET CLE	07/08/24 18:59
Total/NA	Prep	7470A			618589	S4FJ	EET CLE	07/02/24 14:00
Total/NA	Analysis	7470A		1	618959	S4FJ	EET CLE	07/05/24 09:47
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 13:38
Total/NA	Analysis	300.0-1993 R2.1		50	619394	JMR	EET CLE	07/12/24 16:47
Total/NA	Prep	PrecSep-21			669429	MLT	EET SL	07/05/24 07:45
Total/NA	Analysis	9315		1	672951	CMM	EET SL	07/30/24 10:29
Total/NA	Prep	PrecSep_0			669430	MLT	EET SL	07/05/24 07:52
Total/NA	Analysis	9320		1	671346	SCB	EET SL	07/19/24 12:12
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 14:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207098-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-378-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-03-F-A4-20240628-01	6-28-24	1357	6	Water	N		1	1	1	2		
				Water								
				Water								
				Water								
				Water								

240-207098 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Casto	7-1-24 / 0940	KEMRON	Tom Edwards	7-1-24 11:20 am	Auto Options
Relinquished by: Tom Edwards	Date/Time: 7-1-24 1425 hrs	Company Auto Options	Received by: J MOROSO	Date/Time: 7/1/24 1425	Company KEMRON
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

AUTO OPTIONS, INC. - DELIVERY

1754 Second Street, PO Box 338 - Mason, WV 25260
Long or Short Distance Phone/Fax: (304) 773-5759
Cell Phone: (304) 593-0000 JW Howard, Owner
Cell Phone: (304) 675-0308 Jenny Howard, Owner

12390

Date 7/1/2024

7/31/2024

Name Gavin Lightstone
Street 7397 St Rt 7
City Cheshire State OH
Zip 45620 Phone

Delivery From: Gavin Lightstone PU@11am
7397 St Rt 7
Cheshire, OH 45620

Delivery To: Eurofins
180 S. Van Buren Ave
Barberton, OH

Load #:

Work Order #: 426074218-01

Description: Samples

Weight:

Shipper	Carrier	Consignee
Sign:	Sign:	Sign:
Print:	Print:	Print: Jesse Mercola

WHITE - Original YELLOW - Delivery Copy

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone - GAVIN Site Name _____ Cooler unpacked by: QWR

Cooler Received on 7-1-24 Opened on 7-1-24

FedEx: 1st Grd Exp UPS FAS Waypoint (Client Drop Off) Eurofins Courier Other

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +0.1 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp 2.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes (No)	**Tests that are not checked for pH by Receiving:**
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No (NA)	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	**VOAs**
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	**Oil and Grease**
3 Shippers' packing slip attached to the cooler(s)?	Yes (No)	**TOC**
4. Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y/N)	
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA	pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes (No)	
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes No (NA)	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes (No)	
17 Was a LL Hg or Me Hg trip blank present? _____	Yes (No)	

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen _____

7/1/2024

Login Container Summary Report

240-207098

7/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-03-F-A4-20240628-01	240-207098-A-1	Plastic 250ml - unpreserved				
2022-03-F-A4-20240628-01	240-207098-B-1	Plastic 250ml - unpreserved				
2022-03-F-A4-20240628-01	240-207098-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A4-20240628-01	240-207098-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-A4-20240628-01	240-207098-E-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187025.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207098-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/15/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Total Number of containers	Preservation Code:	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Special Instructions/Note:
2022-03-F-A4-20240628-01 (240-207098-1)	6/28/24	13:57 Eastern		Water			X	X	X	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	7/1/24 1630	EET NC	M. Pinette		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: JUL 02 2024 0900	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187025.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207098-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/15/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Special Instructions/Note:
2022-03-F-A4-20240628-01 (240-207098-1)	6/28/24	13:57 Eastern		Water	X	X	X	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7/1/24 1630	Company: EETNC	Received by: M. Pinette
Relinquished by:	Date/Time:	Company	Received by: Date/Time: JUL 03 2024 0915 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207098-1

Login Number: 207098
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 07/02/24 01:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/12/2024 12:33:07 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207101-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207101-1 Eurofins Cleveland

Job Narrative
240-207101-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/1/2024 2:25 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-03-F-A3-20240628-01 (240-207101-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207101-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207101-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207101-1	2022-03-F-A3-20240628-01	Water	06/28/24 13:57	07/01/24 14:25

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207101-1

Client Sample ID: 2022-03-F-A3-20240628-01

Lab Sample ID: 240-207101-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	280		100	57	ug/L	1		6010D	Total Recoverable
Calcium	380000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	140000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	9300000		20000	6600	ug/L	20		6020B	Total Recoverable
Total Alkalinity	100		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	100		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	17000		100	13	mg/L	100		300.0	Total/NA
Total Dissolved Solids	22000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207101-1

Client Sample ID: 2022-03-F-A3-20240628-01
Date Collected: 06/28/24 13:57
Date Received: 07/01/24 14:25

Lab Sample ID: 240-207101-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	280		100	57	ug/L		07/02/24 14:00	07/04/24 08:57	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	380000		1000	250	ug/L		07/02/24 14:00	07/03/24 21:22	1
Magnesium	140000		1000	61	ug/L		07/02/24 14:00	07/03/24 21:22	1
Potassium	24000		1000	220	ug/L		07/02/24 14:00	07/03/24 21:22	1
Sodium	9300000		20000	6600	ug/L		07/02/24 14:00	07/05/24 12:24	20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	100		5.0	2.6	mg/L			07/08/24 13:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	100		5.0	2.6	mg/L			07/08/24 13:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:43	1
Chloride (EPA 300.0)	17000		100	13	mg/L			07/10/24 09:03	100
Fluoride (EPA 300.0)	ND		1.3	0.60	mg/L			07/11/24 20:46	25
Sulfate (EPA 300.0)	ND		25	8.7	mg/L			07/11/24 20:46	25
Total Dissolved Solids (SM 2540C)	22000		1000	780	mg/L			07/03/24 08:30	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618786

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 05:31	1

Lab Sample ID: LCS 240-618610/2-A
Matrix: Water
Analysis Batch: 618786

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1040		ug/L		104	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618830

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/03/24 20:13	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/03/24 20:13	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 20:13	1

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 11:23	1

Lab Sample ID: LCS 240-618610/3-A
Matrix: Water
Analysis Batch: 618830

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24300		ug/L		97	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120

Lab Sample ID: LCS 240-618610/3-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	25300		ug/L		101	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/29
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619243/3
Matrix: Water
Analysis Batch: 619243

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/10/24 06:43	1
Fluoride	ND		0.050	0.024	mg/L			07/10/24 06:43	1
Sulfate	ND		1.0	0.35	mg/L			07/10/24 06:43	1

Lab Sample ID: LCS 240-619243/4
Matrix: Water
Analysis Batch: 619243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.4		mg/L		103	90 - 110
Fluoride	2.50	2.57		mg/L		103	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

Lab Sample ID: MB 240-619627/3
Matrix: Water
Analysis Batch: 619627

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/11/24 15:25	1
Sulfate	ND		1.0	0.35	mg/L			07/11/24 15:25	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-619627/4
Matrix: Water
Analysis Batch: 619627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.61		mg/L		104	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-618699/1
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 08:30	1

Lab Sample ID: LCS 240-618699/2
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	442	410		mg/L		93	80 - 120

Metals

Prep Batch: 618610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total Recoverable	Water	3005A	
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 618786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total Recoverable	Water	6010D	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6010D	618610
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	6010D	618610

Analysis Batch: 618830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610

General Chemistry

Analysis Batch: 618699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total/NA	Water	SM 2540C	
MB 240-618699/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618699/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total/NA	Water	300.0	
MB 240-619243/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619243/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 619627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207101-1	2022-03-F-A3-20240628-01	Total/NA	Water	300.0	
MB 240-619627/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619627/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207101-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-03-F-A3-20240628-01
Lab Sample ID: 240-207101-1
Date Collected: 06/28/24 13:57
Matrix: Water
Date Received: 07/01/24 14:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 08:57
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:22
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		20	618964	AJC	EET CLE	07/05/24 12:24
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 13:43
Total/NA	Analysis	300.0		100	619243	JWW	EET CLE	07/10/24 09:03
Total/NA	Analysis	300.0		25	619627	JWW	EET CLE	07/11/24 20:46
Total/NA	Analysis	SM 2540C		1	618699	UWU2	EET CLE	07/03/24 08:30

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207101-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Bobby C&S/O	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-03-F-AS-20240625-01	6-25-24	1357	G	W	N		1	1	1		

240-207101 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	7-1-24 / 0940	KEMRON	Tom Edwards	7-1-24 11:00 AM	Auto Options
Tom Edwards	7-1-24 1425 hrs	Auto Options	[signature] MORROW	7/1/24 1425	ESTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone - GAVIN Site Name

Cooler Received on 7-1-24 Opened on 7-1-24

Cooler unpacked by: DWR

FedEx: 1st Grd Exp UPS FAS Waypoint (Client Drop Off) Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +0.1 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp. 2.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	Yes (No)	**Tests that are not checked for pH by Receiving:** VOAs, Oil and Grease, TOC
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No (NA)	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	
3 Shippers' packing slip attached to the cooler(s)?	Yes (No)	
4 Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA	pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes (No)	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No (NA)	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes (No)	
17 Was a LL Hg or Me Hg trip blank present?	Yes (No)	

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page — Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

7/1/2024

Login Container Summary Report

240-207101

7/12/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-03-F-A3-20240628-01	240-207101-A-1	Plastic 250ml - unpreserved				
2022-03-F-A3-20240628-01	240-207101-B-1	Plastic 250ml - unpreserved				
2022-03-F-A3-20240628-01	240-207101-C-1	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/11/2024 8:56:25 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207102-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207102-1 Eurofins Cleveland

Job Narrative
240-207102-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/1/2024 2:25 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207102-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207102-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207102-1	2022-05-F-A3-20240628-01	Water	06/28/24 12:15	07/01/24 14:25
240-207102-2	EB-001-F-A3-20240628-01	Water	06/28/24 12:45	07/01/24 14:25

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207102-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-05-F-A3-20240628-01
Lab Sample ID: 240-207102-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	360		100	57	ug/L	1		6010D	Total Recoverable
Calcium	34000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	11000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1600000		5000	1600	ug/L	5		6020B	Total Recoverable
Total Alkalinity	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2600		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.7		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	100		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	4600		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-A3-20240628-01
Lab Sample ID: 240-207102-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207102-1

Client Sample ID: 2022-05-F-A3-20240628-01
Date Collected: 06/28/24 12:15
Date Received: 07/01/24 14:25

Lab Sample ID: 240-207102-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	360		100	57	ug/L		07/02/24 14:00	07/04/24 09:01	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	34000		1000	250	ug/L		07/02/24 14:00	07/03/24 21:24	1
Magnesium	11000		1000	61	ug/L		07/02/24 14:00	07/03/24 21:24	1
Potassium	3600		1000	220	ug/L		07/02/24 14:00	07/03/24 21:24	1
Sodium	1600000		5000	1600	ug/L		07/02/24 14:00	07/05/24 12:26	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	290		5.0	2.6	mg/L			07/08/24 13:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	290		5.0	2.6	mg/L			07/08/24 13:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:50	1
Chloride (EPA 300.0)	2600		25	3.2	mg/L			07/10/24 08:43	25
Fluoride (EPA 300.0)	1.7		0.25	0.12	mg/L			07/10/24 08:23	5
Sulfate (EPA 300.0)	100		5.0	1.7	mg/L			07/10/24 08:23	5
Total Dissolved Solids (SM 2540C)	4600		50	39	mg/L			07/03/24 08:30	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207102-1

Client Sample ID: EB-001-F-A3-20240628-01

Lab Sample ID: 240-207102-2

Date Collected: 06/28/24 12:45

Matrix: Water

Date Received: 07/01/24 14:25

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 09:06	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/03/24 21:27	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/03/24 21:27	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 21:27	1
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 13:57	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			07/10/24 07:23	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			07/10/24 07:23	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			07/10/24 07:23	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			07/03/24 11:44	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618786

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/02/24 14:00	07/04/24 05:31	1

Lab Sample ID: LCS 240-618610/2-A
Matrix: Water
Analysis Batch: 618786

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1040		ug/L		104	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618830

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/02/24 14:00	07/03/24 20:13	1
Magnesium	ND		1000	61	ug/L		07/02/24 14:00	07/03/24 20:13	1
Potassium	ND		1000	220	ug/L		07/02/24 14:00	07/03/24 20:13	1

Lab Sample ID: MB 240-618610/1-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	330	ug/L		07/02/24 14:00	07/05/24 11:23	1

Lab Sample ID: LCS 240-618610/3-A
Matrix: Water
Analysis Batch: 618830

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24300		ug/L		97	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120

Lab Sample ID: LCS 240-618610/3-A
Matrix: Water
Analysis Batch: 618964

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 618610

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	25300		ug/L		101	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/4
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 11:25	1

Lab Sample ID: LCS 240-619189/29
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	273		mg/L		98	86 - 123		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619243/3
Matrix: Water
Analysis Batch: 619243

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/10/24 06:43	1
Fluoride	ND		0.050	0.024	mg/L			07/10/24 06:43	1
Sulfate	ND		1.0	0.35	mg/L			07/10/24 06:43	1

Lab Sample ID: LCS 240-619243/4
Matrix: Water
Analysis Batch: 619243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	51.4		mg/L		103	90 - 110		
Fluoride			2.50	2.57		mg/L		103	90 - 110		
Sulfate			50.0	51.4		mg/L		103	90 - 110		

Lab Sample ID: 240-207102-2 MS
Matrix: Water
Analysis Batch: 619243

Client Sample ID: EB-001-F-A3-20240628-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		50.0	54.4		mg/L		109	80 - 120		
Fluoride	ND		2.50	2.68		mg/L		107	80 - 120		
Sulfate	ND		50.0	54.1		mg/L		108	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-207102-2 MSD
Matrix: Water
Analysis Batch: 619243

Client Sample ID: EB-001-F-A3-20240628-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	55.5		mg/L		111	80 - 120	2	15
Fluoride	ND		2.50	2.73		mg/L		109	80 - 120	2	15
Sulfate	ND		50.0	55.4		mg/L		111	80 - 120	2	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-618699/1
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 08:30	1

Lab Sample ID: LCS 240-618699/2
Matrix: Water
Analysis Batch: 618699

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	442	410		mg/L		93	80 - 120

Lab Sample ID: MB 240-618775/1
Matrix: Water
Analysis Batch: 618775

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/03/24 11:44	1

Lab Sample ID: LCS 240-618775/2
Matrix: Water
Analysis Batch: 618775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	442	409		mg/L		93	80 - 120

Metals

Prep Batch: 618610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total Recoverable	Water	3005A	
240-207102-2	EB-001-F-A3-20240628-01	Total Recoverable	Water	3005A	
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 618786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total Recoverable	Water	6010D	618610
240-207102-2	EB-001-F-A3-20240628-01	Total Recoverable	Water	6010D	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6010D	618610
LCS 240-618610/2-A	Lab Control Sample	Total Recoverable	Water	6010D	618610

Analysis Batch: 618830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total Recoverable	Water	6020B	618610
240-207102-2	EB-001-F-A3-20240628-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610

Analysis Batch: 618964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total Recoverable	Water	6020B	618610
240-207102-2	EB-001-F-A3-20240628-01	Total Recoverable	Water	6020B	618610
MB 240-618610/1-A	Method Blank	Total Recoverable	Water	6020B	618610
LCS 240-618610/3-A	Lab Control Sample	Total Recoverable	Water	6020B	618610

General Chemistry

Analysis Batch: 618699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total/NA	Water	SM 2540C	
MB 240-618699/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618699/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 618775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-2	EB-001-F-A3-20240628-01	Total/NA	Water	SM 2540C	
MB 240-618775/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-618775/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total/NA	Water	2320B-1997	
240-207102-2	EB-001-F-A3-20240628-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/29	Lab Control Sample	Total/NA	Water	2320B-1997	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207102-1

General Chemistry

Analysis Batch: 619243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207102-1	2022-05-F-A3-20240628-01	Total/NA	Water	300.0	
240-207102-1	2022-05-F-A3-20240628-01	Total/NA	Water	300.0	
240-207102-2	EB-001-F-A3-20240628-01	Total/NA	Water	300.0	
MB 240-619243/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619243/4	Lab Control Sample	Total/NA	Water	300.0	
240-207102-2 MS	EB-001-F-A3-20240628-01	Total/NA	Water	300.0	
240-207102-2 MSD	EB-001-F-A3-20240628-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207102-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-05-F-A3-20240628-01
Lab Sample ID: 240-207102-1

Date Collected: 06/28/24 12:15
Matrix: Water
Date Received: 07/01/24 14:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 09:01
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:24
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		5	618964	AJC	EET CLE	07/05/24 12:26
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 13:50
Total/NA	Analysis	300.0		5	619243	JWW	EET CLE	07/10/24 08:23
Total/NA	Analysis	300.0		25	619243	JWW	EET CLE	07/10/24 08:43
Total/NA	Analysis	SM 2540C		1	618699	UWU2	EET CLE	07/03/24 08:30

Client Sample ID: EB-001-F-A3-20240628-01
Lab Sample ID: 240-207102-2

Date Collected: 06/28/24 12:45
Matrix: Water
Date Received: 07/01/24 14:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6010D		1	618786	RKT	EET CLE	07/04/24 09:06
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618830	AJC	EET CLE	07/03/24 21:27
Total Recoverable	Prep	3005A			618610	TQ6W	EET CLE	07/02/24 14:00
Total Recoverable	Analysis	6020B		1	618964	AJC	EET CLE	07/05/24 12:34
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 13:57
Total/NA	Analysis	300.0		1	619243	JWW	EET CLE	07/10/24 07:23
Total/NA	Analysis	SM 2540C		1	618775	UWU2	EET CLE	07/03/24 11:44

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207102-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

2.0127

eurofins Environment Testing America

Client Information	Sampler: Bobby Cuto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	X	
2022-05-F-A3-20240628-c1	6-28-24	1215	G	W	N		1	1	1		
EB-c01-F-A3-20240628-c1	6-28-24	1245	G	W	N		1	1	1		

240-207102 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Bobby Cuto	Date/Time: 7-1-24 / 0940	Company: Kleinfelder	Received by: Tom Edwards	Date/Time: 7-1-24 11:60hrs	Company: Auto Options
Relinquished by: Tom Edwards	Date/Time: 7-1-24 1425hrs	Company: Auto Options	Received by: J. MOROSKI	Date/Time: 7/1/24 1425	Company: TNR
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # : 202102**
Barberton Facility

Client Lightstone - GAVIN Site Name _____ Cooler unpacked by: EWB

Cooler Received on 7-1-24 Opened on 7-1-24

FedEx: 1st Grd Exp UPS FAS Waypoint (Client Drop Off) Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 13 (CF +0.1 °C) Observed Cooler Temp. 2.6 °C Corrected Cooler Temp 2.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	Yes (No)	**Tests that are not checked for pH by Receiving:**
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No (NA)	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	**VOAs**
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	**Oil and Grease**
3 Shippers' packing slip attached to the cooler(s)?	Yes (No)	**TOC**
4. Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA	pH Strip Lot# HC442471
14. Were VOAs on the COC?	Yes (No)	
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No (NA)	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes (No)	
17 Was a LL Hg or Me Hg trip blank present? _____	Yes (No)	

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

7/1/2024

Login Container Summary Report

240-207102

7/11/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A3-20240628-01	240-207102-A-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20240628-01	240-207102-B-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20240628-01	240-207102-C-1	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A3-20240628-01	240-207102-A-2	Plastic 250ml - unpreserved				
EB-001-F-A3-20240628-01	240-207102-B-2	Plastic 250ml - unpreserved				
EB-001-F-A3-20240628-01	240-207102-C-2	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 8/1/2024 2:49:06 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207257-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207257-1 — Eurofins Cleveland

Job Narrative
240-207257-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/5/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 1.1°C and 3.0°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207257-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207257-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207257-1	2022-04-F-A4-20240701-01	Water	07/01/24 11:43	07/05/24 08:00
240-207257-2	DUP-002-F-A4-20240701-01	Water	07/01/24 00:00	07/05/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207257-1

Client Sample ID: 2022-04-F-A4-20240701-01 — Lab Sample ID: 240-207257-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.57	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	90		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.34	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	24		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	31000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	99000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: DUP-002-F-A4-20240701-01 — Lab Sample ID: 240-207257-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.80	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	87		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	100000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.35	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	24		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	31000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	99000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.39	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-04-F-A4-20240701-01
Date Collected: 07/01/24 11:43
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207257-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.57**	**J**	2.0	0.57	ug/L		07/08/24 14:00	07/09/24 23:34	1
Arsenic	**1.1**	**J**	5.0	0.75	ug/L		07/08/24 14:00	07/09/24 23:34	1
Barium	**90**		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 23:34	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/11/24 09:33	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 23:34	1
Calcium	**100000**		1000	250	ug/L		07/08/24 14:00	07/09/24 23:34	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 23:34	1
Cobalt	**0.34**	**J**	1.0	0.19	ug/L		07/08/24 14:00	07/09/24 23:34	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 23:34	1
Lithium	**24**		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 23:34	1
Magnesium	**31000**		1000	61	ug/L		07/08/24 14:00	07/09/24 23:34	1
Molybdenum	**1.2**	**J**	5.0	1.1	ug/L		07/08/24 14:00	07/09/24 23:34	1
Potassium	**3600**		1000	220	ug/L		07/08/24 14:00	07/09/24 23:34	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 23:34	1
Sodium	**99000**		1000	330	ug/L		07/08/24 14:00	07/09/24 23:34	1
Thallium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 23:34	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**490**		5.0	2.6	mg/L			07/08/24 16:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**490**		5.0	2.6	mg/L			07/08/24 16:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 16:46	1
Fluoride (EPA 300.0-1993 R2.1)	**0.11**		0.050	0.024	mg/L			07/12/24 16:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.259**		0.107	0.109	1.00	0.110	pCi/L	07/09/24 07:42	07/31/24 10:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*30 - 110*	*07/09/24 07:42*	*07/31/24 10:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.215	U	0.340	0.341	1.00	0.578	pCi/L	07/09/24 07:47	07/25/24 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:47*	*1*
Y Carrier	*81.1*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:47*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207257-1

Client Sample ID: 2022-04-F-A4-20240701-01
Date Collected: 07/01/24 11:43
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207257-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.474	U	0.356	0.358	5.00	0.578	pCi/L		07/31/24 17:23	1

Client Sample ID: DUP-002-F-A4-20240701-01

Date Collected: 07/01/24 00:00
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207257-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.80**	**J**	2.0	0.57	ug/L		07/08/24 14:00	07/09/24 23:46	1
Arsenic	**1.8**	**J**	5.0	0.75	ug/L		07/08/24 14:00	07/09/24 23:46	1
Barium	**87**		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 23:46	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/11/24 09:51	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 23:46	1
Calcium	**100000**		1000	250	ug/L		07/08/24 14:00	07/09/24 23:46	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 23:46	1
Cobalt	**0.35**	**J**	1.0	0.19	ug/L		07/08/24 14:00	07/09/24 23:46	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 23:46	1
Lithium	**24**		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 23:46	1
Magnesium	**31000**		1000	61	ug/L		07/08/24 14:00	07/09/24 23:46	1
Molybdenum	**1.2**	**J**	5.0	1.1	ug/L		07/08/24 14:00	07/09/24 23:46	1
Potassium	**3500**		1000	220	ug/L		07/08/24 14:00	07/09/24 23:46	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 23:46	1
Sodium	**99000**		1000	330	ug/L		07/08/24 14:00	07/09/24 23:46	1
Thallium	**0.39**	**J**	1.0	0.20	ug/L		07/08/24 14:00	07/09/24 23:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**490**		5.0	2.6	mg/L			07/08/24 16:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**490**		5.0	2.6	mg/L			07/08/24 16:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 16:53	1
Fluoride (EPA 300.0-1993 R2.1)	**0.11**		0.050	0.024	mg/L			07/12/24 17:40	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.273**		0.118	0.120	1.00	0.137	pCi/L	07/09/24 07:42	07/31/24 10:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*07/09/24 07:42*	*07/31/24 10:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.321	0.321	1.00	0.569	pCi/L	07/09/24 07:47	07/25/24 12:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*
Y Carrier	*80.4*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207257-1

Client Sample ID: DUP-002-F-A4-20240701-01
Date Collected: 07/01/24 00:00
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207257-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.390	U	0.342	0.343	5.00	0.569	pCi/L		07/31/24 17:23	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207257-1
Project/Site: Federal CCR Wells - App IV

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207257-1	2022-04-F-A4-20240701-01	94.3
240-207257-2	DUP-002-F-A4-20240701-01	92.3
LCS 160-669780/2-A	Lab Control Sample	93.5
MB 160-669780/1-A	Method Blank	83.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207257-1	2022-04-F-A4-20240701-01	94.3	81.1
240-207257-2	DUP-002-F-A4-20240701-01	92.3	80.4
LCS 160-669781/2-A	Lab Control Sample	93.5	79.6
MB 160-669781/1-A	Method Blank	83.3	82.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-619109/1-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/08/24 14:00	07/09/24 23:28	1
Arsenic	ND		5.0	0.75	ug/L		07/08/24 14:00	07/09/24 23:28	1
Barium	ND		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 23:28	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 23:28	1
Calcium	ND		1000	250	ug/L		07/08/24 14:00	07/09/24 23:28	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 23:28	1
Cobalt	ND		1.0	0.19	ug/L		07/08/24 14:00	07/09/24 23:28	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 23:28	1
Lithium	ND		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 23:28	1
Magnesium	ND		1000	61	ug/L		07/08/24 14:00	07/09/24 23:28	1
Molybdenum	ND		5.0	1.1	ug/L		07/08/24 14:00	07/09/24 23:28	1
Potassium	ND		1000	220	ug/L		07/08/24 14:00	07/09/24 23:28	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 23:28	1
Sodium	ND		1000	330	ug/L		07/08/24 14:00	07/09/24 23:28	1
Thallium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 23:28	1

Lab Sample ID: MB 240-619109/1-A
Matrix: Water
Analysis Batch: 619445

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/10/24 15:28	1

Lab Sample ID: LCS 240-619109/2-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	911		ug/L		91	80 - 120
Barium	1000	991		ug/L		99	80 - 120
Cadmium	500	493		ug/L		99	80 - 120
Calcium	25000	24600		ug/L		98	80 - 120
Chromium	500	509		ug/L		102	80 - 120
Cobalt	500	458		ug/L		92	80 - 120
Lead	500	489		ug/L		98	80 - 120
Lithium	500	528		ug/L		106	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Molybdenum	500	468		ug/L		94	80 - 120
Potassium	25000	25100		ug/L		101	80 - 120
Selenium	1000	920		ug/L		92	80 - 120
Sodium	25000	24400		ug/L		98	80 - 120
Thallium	1000	1000		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-619109/2-A
Matrix: Water
Analysis Batch: 619445

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium			500	449		ug/L		90	80 - 120		

Lab Sample ID: 240-207257-1 MS
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-04-F-A4-20240701-01
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	0.57	J	100	101		ug/L		100	80 - 120		
Arsenic	1.1	J	1000	932		ug/L		93	80 - 120		
Barium	90		1000	1070		ug/L		98	80 - 120		
Cadmium	ND		500	481		ug/L		96	80 - 120		
Calcium	100000		25000	125000	4	ug/L		90	80 - 120		
Chromium	ND		500	500		ug/L		100	80 - 120		
Cobalt	0.34	J	500	458		ug/L		92	80 - 120		
Lead	ND		500	476		ug/L		95	80 - 120		
Lithium	24		500	540		ug/L		103	80 - 120		
Magnesium	31000		25000	54100		ug/L		91	80 - 120		
Molybdenum	1.2	J	500	478		ug/L		95	80 - 120		
Potassium	3600		25000	28300		ug/L		99	80 - 120		
Selenium	ND		1000	921		ug/L		92	80 - 120		
Sodium	99000		25000	122000		ug/L		91	80 - 120		
Thallium	ND		1000	963		ug/L		96	80 - 120		

Lab Sample ID: 240-207257-1 MS
Matrix: Water
Analysis Batch: 619553

Client Sample ID: 2022-04-F-A4-20240701-01
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Beryllium	ND		500	476		ug/L		95	80 - 120		

Lab Sample ID: 240-207257-1 MSD
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-04-F-A4-20240701-01
Prep Type: Total Recoverable
Prep Batch: 619109

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.57	J	100	102		ug/L		102	80 - 120	1	20
Arsenic	1.1	J	1000	942		ug/L		94	80 - 120	1	20
Barium	90		1000	1090		ug/L		100	80 - 120	2	20
Cadmium	ND		500	489		ug/L		98	80 - 120	2	20
Calcium	100000		25000	127000	4	ug/L		97	80 - 120	1	20
Chromium	ND		500	504		ug/L		101	80 - 120	1	20
Cobalt	0.34	J	500	468		ug/L		94	80 - 120	2	20
Lead	ND		500	478		ug/L		96	80 - 120	0	20
Lithium	24		500	548		ug/L		105	80 - 120	1	20
Magnesium	31000		25000	54900		ug/L		94	80 - 120	1	20
Molybdenum	1.2	J	500	486		ug/L		97	80 - 120	2	20
Potassium	3600		25000	28600		ug/L		100	80 - 120	1	20
Selenium	ND		1000	918		ug/L		92	80 - 120	0	20
Sodium	99000		25000	124000		ug/L		99	80 - 120	2	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-207257-1 MSD — **Client Sample ID: 2022-04-F-A4-20240701-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 619271 — **Prep Batch: 619109**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	ND		1000	968		ug/L		97	80 - 120	0	20

Lab Sample ID: 240-207257-1 MSD — **Client Sample ID: 2022-04-F-A4-20240701-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 619553 — **Prep Batch: 619109**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND		500	466		ug/L		93	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-619110/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619321 — **Prep Batch: 619110**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 13:00	1

Lab Sample ID: LCS 240-619110/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619321 — **Prep Batch: 619110**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.81		ug/L		96	80 - 120

Lab Sample ID: 240-207257-1 MS — **Client Sample ID: 2022-04-F-A4-20240701-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619321 — **Prep Batch: 619110**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.977		ug/L		98	80 - 120

Lab Sample ID: 240-207257-1 MSD — **Client Sample ID: 2022-04-F-A4-20240701-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619321 — **Prep Batch: 619110**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.966		ug/L		97	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 619189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-619189/56
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1

Lab Sample ID: LCS 240-619189/55
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	273		mg/L		98	86 - 123		

Lab Sample ID: 240-207257-2 DU
Matrix: Water
Analysis Batch: 619189

Client Sample ID: DUP-002-F-A4-20240701-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	490			488		mg/L				0.7	20
Bicarbonate Alkalinity as CaCO3	490			488		mg/L				0.7	20
Carbonate Alkalinity as CaCO3	ND			ND		mg/L				NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619747/3
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 16:01	1

Lab Sample ID: LCS 240-619747/4
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.66		mg/L		107	90 - 110		

Lab Sample ID: 240-207257-1 MS
Matrix: Water
Analysis Batch: 619747

Client Sample ID: 2022-04-F-A4-20240701-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	0.11		2.50	2.79		mg/L		107	80 - 120		

Lab Sample ID: 240-207257-1 MSD
Matrix: Water
Analysis Batch: 619747

Client Sample ID: 2022-04-F-A4-20240701-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.11		2.50	2.76		mg/L		106	80 - 120	1	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669780/1-A
Matrix: Water
Analysis Batch: 673240

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669780

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07477	U	0.0875	0.0877	1.00	0.142	pCi/L	07/09/24 07:42	07/31/24 08:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*07/09/24 07:42*	*07/31/24 08:17*	*1*

Lab Sample ID: LCS 160-669780/2-A
Matrix: Water
Analysis Batch: 673240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669780

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.48		1.13	1.00	0.158	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669781/1-A
Matrix: Water
Analysis Batch: 672313

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669781

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02449	U	0.303	0.303	1.00	0.566	pCi/L	07/09/24 07:47	07/25/24 12:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:28*	*1*
Y Carrier	*82.6*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:28*	*1*

Lab Sample ID: LCS 160-669781/2-A
Matrix: Water
Analysis Batch: 672313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669781

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.73	8.866		1.24	1.00	0.548	pCi/L	102	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.5*		*30 - 110*
Y Carrier	*79.6*		*30 - 110*

Metals

Prep Batch: 619109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total Recoverable	Water	3005A	
240-207257-2	DUP-002-F-A4-20240701-01	Total Recoverable	Water	3005A	
MB 240-619109/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-619109/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-207257-1 MS	2022-04-F-A4-20240701-01	Total Recoverable	Water	3005A	
240-207257-1 MSD	2022-04-F-A4-20240701-01	Total Recoverable	Water	3005A	

Prep Batch: 619110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total/NA	Water	7470A	
240-207257-2	DUP-002-F-A4-20240701-01	Total/NA	Water	7470A	
MB 240-619110/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-619110/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-207257-1 MS	2022-04-F-A4-20240701-01	Total/NA	Water	7470A	
240-207257-1 MSD	2022-04-F-A4-20240701-01	Total/NA	Water	7470A	

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total Recoverable	Water	6020B	619109
240-207257-2	DUP-002-F-A4-20240701-01	Total Recoverable	Water	6020B	619109
MB 240-619109/1-A	Method Blank	Total Recoverable	Water	6020B	619109
LCS 240-619109/2-A	Lab Control Sample	Total Recoverable	Water	6020B	619109
240-207257-1 MS	2022-04-F-A4-20240701-01	Total Recoverable	Water	6020B	619109
240-207257-1 MSD	2022-04-F-A4-20240701-01	Total Recoverable	Water	6020B	619109

Analysis Batch: 619321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total/NA	Water	7470A	619110
240-207257-2	DUP-002-F-A4-20240701-01	Total/NA	Water	7470A	619110
MB 240-619110/1-A	Method Blank	Total/NA	Water	7470A	619110
LCS 240-619110/2-A	Lab Control Sample	Total/NA	Water	7470A	619110
240-207257-1 MS	2022-04-F-A4-20240701-01	Total/NA	Water	7470A	619110
240-207257-1 MSD	2022-04-F-A4-20240701-01	Total/NA	Water	7470A	619110

Analysis Batch: 619445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-619109/1-A	Method Blank	Total Recoverable	Water	6020B	619109
LCS 240-619109/2-A	Lab Control Sample	Total Recoverable	Water	6020B	619109

Analysis Batch: 619553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total Recoverable	Water	6020B	619109
240-207257-2	DUP-002-F-A4-20240701-01	Total Recoverable	Water	6020B	619109
240-207257-1 MS	2022-04-F-A4-20240701-01	Total Recoverable	Water	6020B	619109
240-207257-1 MSD	2022-04-F-A4-20240701-01	Total Recoverable	Water	6020B	619109

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 619189 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-2	DUP-002-F-A4-20240701-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/55	Lab Control Sample	Total/NA	Water	2320B-1997	
240-207257-2 DU	DUP-002-F-A4-20240701-01	Total/NA	Water	2320B-1997	

Analysis Batch: 619747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total/NA	Water	300.0-1993 R2.1	
240-207257-2	DUP-002-F-A4-20240701-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619747/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-619747/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-207257-1 MS	2022-04-F-A4-20240701-01	Total/NA	Water	300.0-1993 R2.1	
240-207257-1 MSD	2022-04-F-A4-20240701-01	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 669780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total/NA	Water	PrecSep-21	
240-207257-2	DUP-002-F-A4-20240701-01	Total/NA	Water	PrecSep-21	
MB 160-669780/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669780/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 669781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207257-1	2022-04-F-A4-20240701-01	Total/NA	Water	PrecSep_0	
240-207257-2	DUP-002-F-A4-20240701-01	Total/NA	Water	PrecSep_0	
MB 160-669781/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669781/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207257-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-04-F-A4-20240701-01
Lab Sample ID: 240-207257-1

Date Collected: 07/01/24 11:43
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619109	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 23:34
Total Recoverable	Prep	3005A			619109	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619553	AJC	EET CLE	07/11/24 09:33
Total/NA	Prep	7470A			619110	TQ6W	EET CLE	07/08/24 14:00
Total/NA	Analysis	7470A		1	619321	GK	EET CLE	07/09/24 13:03
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 16:46
Total/NA	Analysis	300.0-1993 R2.1		1	619747	JMR	EET CLE	07/12/24 16:41
Total/NA	Prep	PrecSep-21			669780	MLT	EET SL	07/09/24 07:42
Total/NA	Analysis	9315		1	673240	SWS	EET SL	07/31/24 10:10
Total/NA	Prep	PrecSep_0			669781	MLT	EET SL	07/09/24 07:47
Total/NA	Analysis	9320		1	672312	CMM	EET SL	07/25/24 12:47
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 17:23

Client Sample ID: DUP-002-F-A4-20240701-01
Lab Sample ID: 240-207257-2

Date Collected: 07/01/24 00:00
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619109	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 23:46
Total Recoverable	Prep	3005A			619109	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619553	AJC	EET CLE	07/11/24 09:51
Total/NA	Prep	7470A			619110	TQ6W	EET CLE	07/08/24 14:00
Total/NA	Analysis	7470A		1	619321	GK	EET CLE	07/09/24 13:08
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 16:53
Total/NA	Analysis	300.0-1993 R2.1		1	619747	JMR	EET CLE	07/12/24 17:40
Total/NA	Prep	PrecSep-21			669780	MLT	EET SL	07/09/24 07:42
Total/NA	Analysis	9315		1	673240	SWS	EET SL	07/31/24 10:10
Total/NA	Prep	PrecSep_0			669781	MLT	EET SL	07/09/24 07:47
Total/NA	Analysis	9320		1	672312	CMM	EET SL	07/25/24 12:48
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 17:23

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207257-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	10-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207257-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus
209

eurofins | Environment Testing America

Client Information	Sampler: Bobby Costa	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:

Address: 7397 OH-7	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Cheshire	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No		
Phone: 740-925-3171(Tel)	PO #: 2935505		
Email: taylor.huffman@lightstonegen.com	WO #:		
Project Name: Federal CCR Wells - App IV	Project #: 24019633		
Site: GAVIN	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-04-F-A4-20240701-01	7-1-24	1143	G	Water	N		1	1	1	2		
DUP-002-F-A4-20240701-01	7-1-24	—	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-207257 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Costa	7-3-24/0945	Kemron	Ashley Deal	7.3.24 11:32	ETA
Relinquished by: Ashley Deal	Date/Time: 7.3.24 1700	Company ETA	Received by:	Date/Time: 7-5-24 800	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 207957
Barberton Facility

Client Lightstone Site Name

Cooler Received on 7-5-24 Opened on 7-5-24

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # 22 Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam ~~Plastic Bag~~ None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 7	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(Y) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12 Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC339814
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	(No) NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : 207257

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	3.1	3.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.1	1.0	Wet Ice Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.2	1.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

7/5/2024

Login Container Summary Report

240-207257

8/1/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-04-F-A4-20240701-01	240-207257-A-1	Plastic 250ml - unpreserved				
2022-04-F-A4-20240701-01	240-207257-B-1	Plastic 500ml - unpreserved				
2022-04-F-A4-20240701-01	240-207257-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-A4-20240701-01	240-207257-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-A4-20240701-01	240-207257-E-1	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-A4-20240701-01	240-207257-A-2	Plastic 250ml - unpreserved				
DUP-002-F-A4-20240701-01	240-207257-B-2	Plastic 500ml - unpreserved				
DUP-002-F-A4-20240701-01	240-207257-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-002-F-A4-20240701-01	240-207257-D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-A4-20240701-01	240-207257-E-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187200.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207257-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/5/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-04-F-A4-20240701-01 (240-207257-1)	7/1/24	11:43 Eastern		Water			X	X	X	1	
DUP-002-F-A4-20240701-01 (240-207257-2)	7/1/24	Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
JESSICA RIGDON	7-5-24 1330	EETNC	Richard Thornley	JUL 0 8 2024 0840	EFASTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207257-1

Login Number: 207257
List Number: 2
Creator: Thornley, Richard W

List Source: Eurofins St. Louis
List Creation: 07/08/24 12:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207258-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207258-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207258-1 — Eurofins Cleveland

Job Narrative
240-207258-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/5/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 1.1°C and 3.0°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207258-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207258-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207258-1	2022-04-F-A3-20240701-01	Water	07/01/24 11:43	07/05/24 08:00
240-207258-2	DUP-002-F-A3-20240701-01	Water	07/01/24 00:00	07/05/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207258-1

Client Sample ID: 2022-04-F-A3-20240701-01 — Lab Sample ID: 240-207258-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	650		100	57	ug/L	1		6010D	Total Recoverable
Calcium	93000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	29000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	100000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	30		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	79		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	600		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-002-F-A3-20240701-01 — Lab Sample ID: 240-207258-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	680		100	57	ug/L	1		6010D	Total Recoverable
Calcium	97000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	30000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	100000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	30		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	78		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	620		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207258-1

Client Sample ID: 2022-04-F-A3-20240701-01

Date Collected: 07/01/24 11:43
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207258-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	650		100	57	ug/L		07/08/24 14:00	07/09/24 13:13	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	93000		1000	250	ug/L		07/08/24 14:00	07/09/24 20:03	1
Magnesium	29000		1000	61	ug/L		07/08/24 14:00	07/09/24 20:03	1
Potassium	3400		1000	220	ug/L		07/08/24 14:00	07/09/24 20:03	1
Sodium	100000		1000	330	ug/L		07/08/24 14:00	07/09/24 20:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	490		5.0	2.6	mg/L			07/08/24 17:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	490		5.0	2.6	mg/L			07/08/24 17:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:07	1
Chloride (EPA 300.0)	30		1.0	0.13	mg/L			07/11/24 04:04	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			07/11/24 04:04	1
Sulfate (EPA 300.0)	79		1.0	0.35	mg/L			07/11/24 04:04	1
Total Dissolved Solids (SM 2540C)	600		10	7.8	mg/L			07/08/24 08:38	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207258-1

Client Sample ID: DUP-002-F-A3-20240701-01

Date Collected: 07/01/24 00:00
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207258-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	680		100	57	ug/L		07/08/24 14:00	07/09/24 13:25	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	97000		1000	250	ug/L		07/08/24 14:00	07/09/24 20:16	1
Magnesium	30000		1000	61	ug/L		07/08/24 14:00	07/09/24 20:16	1
Potassium	3500		1000	220	ug/L		07/08/24 14:00	07/09/24 20:16	1
Sodium	100000		1000	330	ug/L		07/08/24 14:00	07/09/24 20:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	490		5.0	2.6	mg/L			07/08/24 17:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	490		5.0	2.6	mg/L			07/08/24 17:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:13	1
Chloride (EPA 300.0)	30		1.0	0.13	mg/L			07/11/24 04:44	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			07/11/24 04:44	1
Sulfate (EPA 300.0)	78		1.0	0.35	mg/L			07/11/24 04:44	1
Total Dissolved Solids (SM 2540C)	620		10	7.8	mg/L			07/08/24 08:38	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619328

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/08/24 14:00	07/09/24 12:34	1

Lab Sample ID: LCS 240-619111/2-A
Matrix: Water
Analysis Batch: 619328

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	988		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/08/24 14:00	07/09/24 19:55	1
Magnesium	ND		1000	61	ug/L		07/08/24 14:00	07/09/24 19:55	1
Potassium	ND		1000	220	ug/L		07/08/24 14:00	07/09/24 19:55	1
Sodium	ND		1000	330	ug/L		07/08/24 14:00	07/09/24 19:55	1

Lab Sample ID: LCS 240-619111/3-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	23300		ug/L		93	80 - 120
Magnesium	25000	23600		ug/L		94	80 - 120
Potassium	25000	23800		ug/L		95	80 - 120
Sodium	25000	23700		ug/L		95	80 - 120

Lab Sample ID: 240-207258-1 MS
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-04-F-A3-20240701-01
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	93000		25000	116000		ug/L		92	80 - 120
Magnesium	29000		25000	51600		ug/L		92	80 - 120
Potassium	3400		25000	27200		ug/L		95	80 - 120
Sodium	100000		25000	123000	4	ug/L		90	80 - 120

Lab Sample ID: 240-207258-1 MSD
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-04-F-A3-20240701-01
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	93000		25000	117000		ug/L		95	80 - 120	1	20
Magnesium	29000		25000	52000		ug/L		93	80 - 120	1	20
Potassium	3400		25000	27500		ug/L		97	80 - 120	1	20
Sodium	100000		25000	123000	4	ug/L		91	80 - 120	0	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/56
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1

Lab Sample ID: LCS 240-619189/55
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	273		mg/L		98	86 - 123		

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619389/3
Matrix: Water
Analysis Batch: 619389

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/10/24 19:44	1
Fluoride	ND		0.050	0.024	mg/L			07/10/24 19:44	1
Sulfate	ND		1.0	0.35	mg/L			07/10/24 19:44	1

Lab Sample ID: LCS 240-619389/4
Matrix: Water
Analysis Batch: 619389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	51.4		mg/L		103	90 - 110		
Fluoride			2.50	2.58		mg/L		103	90 - 110		
Sulfate			50.0	51.6		mg/L		103	90 - 110		

Lab Sample ID: 240-207258-2 MS
Matrix: Water
Analysis Batch: 619389

Client Sample ID: DUP-002-F-A3-20240701-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	30		50.0	78.9		mg/L		98	80 - 120		
Fluoride	0.11		2.50	2.54		mg/L		97	80 - 120		
Sulfate	78		50.0	125		mg/L		94	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-207258-2 MSD
Client Sample ID: DUP-002-F-A3-20240701-01
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 619389

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	30		50.0	79.1		mg/L		98	80 - 120	0	15
Fluoride	0.11		2.50	2.55		mg/L		97	80 - 120	0	15
Sulfate	78		50.0	125		mg/L		94	80 - 120	0	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-619041/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 619041

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/08/24 08:38	1

Lab Sample ID: LCS 240-619041/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 619041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	671		mg/L		93	80 - 120

Metals

Prep Batch: 619111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207258-1	2022-04-F-A3-20240701-01	Total Recoverable	Water	3005A	
240-207258-2	DUP-002-F-A3-20240701-01	Total Recoverable	Water	3005A	
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-619111/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-207258-1 MS	2022-04-F-A3-20240701-01	Total Recoverable	Water	3005A	
240-207258-1 MSD	2022-04-F-A3-20240701-01	Total Recoverable	Water	3005A	

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207258-1	2022-04-F-A3-20240701-01	Total Recoverable	Water	6020B	619111
240-207258-2	DUP-002-F-A3-20240701-01	Total Recoverable	Water	6020B	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6020B	619111
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	6020B	619111
240-207258-1 MS	2022-04-F-A3-20240701-01	Total Recoverable	Water	6020B	619111
240-207258-1 MSD	2022-04-F-A3-20240701-01	Total Recoverable	Water	6020B	619111

Analysis Batch: 619328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207258-1	2022-04-F-A3-20240701-01	Total Recoverable	Water	6010D	619111
240-207258-2	DUP-002-F-A3-20240701-01	Total Recoverable	Water	6010D	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6010D	619111
LCS 240-619111/2-A	Lab Control Sample	Total Recoverable	Water	6010D	619111

General Chemistry

Analysis Batch: 619041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207258-1	2022-04-F-A3-20240701-01	Total/NA	Water	SM 2540C	
240-207258-2	DUP-002-F-A3-20240701-01	Total/NA	Water	SM 2540C	
MB 240-619041/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-619041/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207258-1	2022-04-F-A3-20240701-01	Total/NA	Water	2320B-1997	
240-207258-2	DUP-002-F-A3-20240701-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207258-1	2022-04-F-A3-20240701-01	Total/NA	Water	300.0	
240-207258-2	DUP-002-F-A3-20240701-01	Total/NA	Water	300.0	
MB 240-619389/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619389/4	Lab Control Sample	Total/NA	Water	300.0	
240-207258-2 MS	DUP-002-F-A3-20240701-01	Total/NA	Water	300.0	
240-207258-2 MSD	DUP-002-F-A3-20240701-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207258-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-04-F-A3-20240701-01
Lab Sample ID: 240-207258-1

Date Collected: 07/01/24 11:43
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6010D		1	619328	RKT	EET CLE	07/09/24 13:13
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 20:03
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:07
Total/NA	Analysis	300.0		1	619389	JMR	EET CLE	07/11/24 04:04
Total/NA	Analysis	SM 2540C		1	619041	UWU2	EET CLE	07/08/24 08:38

Client Sample ID: DUP-002-F-A3-20240701-01
Lab Sample ID: 240-207258-2

Date Collected: 07/01/24 00:00
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6010D		1	619328	RKT	EET CLE	07/09/24 13:25
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 20:16
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:13
Total/NA	Analysis	300.0		1	619389	JMR	EET CLE	07/11/24 04:44
Total/NA	Analysis	SM 2540C		1	619041	UWU2	EET CLE	07/08/24 08:38

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207258-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Castle	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-573-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
BG22-04-F-AB-20240701-01	7-1-24	1143	G	W	N		1	1	1		
DUP-002-F-AB-20240701-01	7-1-24	—	G	W	N		1	1	1		

240-207258 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Bobby Castle	7-3-24/0945	KEMRON	Ashley Deal	7.3.24 1132	ETA
Relinquished by: Ashley Deal	7.3.24 1700	ETA	Received by:	7-5-24 800	EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 207256
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by:

Cooler Received on 7-5-24 Opened on 7-5-24

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # 22 Foam Box Client Cooler Box Other

Packing material used. (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 7	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4 Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12 Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC339814
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	(No) NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen

Login # : 207258

7/11/2024

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	3.1	3.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: ~~22~~ 11	1.1	1.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: ~~22~~ 11	1.2	1.1	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

7/5/2024

Login Container Summary Report

240-207258

7/11/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-04-F-A3-20240701-01	240-207258-A-1	Plastic 250ml - unpreserved				
2022-04-F-A3-20240701-01	240-207258-B-1	Plastic 250ml - unpreserved				
2022-04-F-A3-20240701-01	240-207258-C-1	Plastic 500ml - with Nitric Acid				
DUP-002-F-A3-20240701-01	240-207258-A-2	Plastic 250ml - unpreserved				
DUP-002-F-A3-20240701-01	240-207258-B-2	Plastic 250ml - unpreserved				
DUP-002-F-A3-20240701-01	240-207258-C-2	Plastic 500ml - with Nitric Acid				

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/11/2024 10:48:15 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207259-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207259-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207259-1 — Eurofins Cleveland

Job Narrative
240-207259-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/5/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 1.1°C and 3.0°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-14-F-A3-20240702-01 (240-207259-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207259-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207259-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207259-1	2022-12-F-A3-20240702-01	Water	07/02/24 12:35	07/05/24 08:00
240-207259-2	2022-13-F-A3-20240702-01	Water	07/02/24 14:35	07/05/24 08:00
240-207259-3	2022-14-F-A3-20240702-01	Water	07/02/24 15:37	07/05/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207259-1

Client Sample ID: 2022-12-F-A3-20240702-01 — Lab Sample ID: 240-207259-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	72	J	100	57	ug/L	1		6010D	Total Recoverable
Calcium	85000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	18		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	260		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	670		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-13-F-A3-20240702-01 — Lab Sample ID: 240-207259-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	270		100	57	ug/L	1		6010D	Total Recoverable
Calcium	25000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	6800		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1400000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2500		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	1.5		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	6.4		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3900		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-14-F-A3-20240702-01 — Lab Sample ID: 240-207259-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Calcium	270000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	80000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	9400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	4800000		10000	3300	ug/L	10		6020B	Total Recoverable
Total Alkalinity	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	9600		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.36	J	0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	220		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	14000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207259-1

Client Sample ID: 2022-12-F-A3-20240702-01
Date Collected: 07/02/24 12:35
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207259-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	72	J	100	57	ug/L		07/08/24 14:00	07/09/24 13:30	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	85000		1000	250	ug/L		07/08/24 14:00	07/09/24 20:18	1
Magnesium	25000		1000	61	ug/L		07/08/24 14:00	07/09/24 20:18	1
Potassium	2800		1000	220	ug/L		07/08/24 14:00	07/09/24 20:18	1
Sodium	110000		1000	330	ug/L		07/08/24 14:00	07/09/24 20:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			07/08/24 17:20	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			07/08/24 17:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:20	1
Chloride (EPA 300.0)	18		1.0	0.13	mg/L			07/11/24 06:44	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			07/11/24 06:44	1
Sulfate (EPA 300.0)	260		5.0	1.7	mg/L			07/11/24 07:44	5
Total Dissolved Solids (SM 2540C)	670		10	7.8	mg/L			07/08/24 08:38	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207259-1

Client Sample ID: 2022-13-F-A3-20240702-01
Date Collected: 07/02/24 14:35
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207259-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	270		100	57	ug/L		07/08/24 14:00	07/09/24 13:34	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	25000		1000	250	ug/L		07/08/24 14:00	07/09/24 20:26	1
Magnesium	6800		1000	61	ug/L		07/08/24 14:00	07/09/24 20:26	1
Potassium	3000		1000	220	ug/L		07/08/24 14:00	07/09/24 20:26	1
Sodium	1400000		10000	3300	ug/L		07/08/24 14:00	07/10/24 14:05	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			07/08/24 17:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			07/08/24 17:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:26	1
Chloride (EPA 300.0)	2500		20	2.6	mg/L			07/11/24 08:25	20
Fluoride (EPA 300.0)	1.5		0.25	0.12	mg/L			07/11/24 08:05	5
Sulfate (EPA 300.0)	6.4		5.0	1.7	mg/L			07/11/24 08:05	5
Total Dissolved Solids (SM 2540C)	3900		50	39	mg/L			07/08/24 08:38	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207259-1

Client Sample ID: 2022-14-F-A3-20240702-01

Date Collected: 07/02/24 15:37
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207259-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		07/08/24 14:00	07/09/24 13:38	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	270000		1000	250	ug/L		07/08/24 14:00	07/09/24 20:29	1
Magnesium	80000		1000	61	ug/L		07/08/24 14:00	07/09/24 20:29	1
Potassium	9400		1000	220	ug/L		07/08/24 14:00	07/09/24 20:29	1
Sodium	4800000		10000	3300	ug/L		07/08/24 14:00	07/10/24 14:39	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	180		5.0	2.6	mg/L			07/08/24 17:31	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	180		5.0	2.6	mg/L			07/08/24 17:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:31	1
Chloride (EPA 300.0)	9600		100	13	mg/L			07/11/24 09:05	100
Fluoride (EPA 300.0)	0.36	J	0.50	0.24	mg/L			07/11/24 08:45	10
Sulfate (EPA 300.0)	220		10	3.5	mg/L			07/11/24 08:45	10
Total Dissolved Solids (SM 2540C)	14000		1000	780	mg/L			07/08/24 08:38	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619328

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/08/24 14:00	07/09/24 12:34	1

Lab Sample ID: LCS 240-619111/2-A
Matrix: Water
Analysis Batch: 619328

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	988		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/08/24 14:00	07/09/24 19:55	1
Magnesium	ND		1000	61	ug/L		07/08/24 14:00	07/09/24 19:55	1
Potassium	ND		1000	220	ug/L		07/08/24 14:00	07/09/24 19:55	1
Sodium	ND		1000	330	ug/L		07/08/24 14:00	07/09/24 19:55	1

Lab Sample ID: LCS 240-619111/3-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	23300		ug/L		93	80 - 120
Magnesium	25000	23600		ug/L		94	80 - 120
Potassium	25000	23800		ug/L		95	80 - 120
Sodium	25000	23700		ug/L		95	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/56
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-619189/55
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619389/3
Matrix: Water
Analysis Batch: 619389

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/10/24 19:44	1
Fluoride	ND		0.050	0.024	mg/L			07/10/24 19:44	1
Sulfate	ND		1.0	0.35	mg/L			07/10/24 19:44	1

Lab Sample ID: LCS 240-619389/4
Matrix: Water
Analysis Batch: 619389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.4		mg/L		103	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-619041/1
Matrix: Water
Analysis Batch: 619041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/08/24 08:38	1

Lab Sample ID: LCS 240-619041/2
Matrix: Water
Analysis Batch: 619041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	671		mg/L		93	80 - 120

Metals

Prep Batch: 619111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-1	2022-12-F-A3-20240702-01	Total Recoverable	Water	3005A	
240-207259-2	2022-13-F-A3-20240702-01	Total Recoverable	Water	3005A	
240-207259-3	2022-14-F-A3-20240702-01	Total Recoverable	Water	3005A	
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-619111/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-1	2022-12-F-A3-20240702-01	Total Recoverable	Water	6020B	619111
240-207259-2	2022-13-F-A3-20240702-01	Total Recoverable	Water	6020B	619111
240-207259-3	2022-14-F-A3-20240702-01	Total Recoverable	Water	6020B	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6020B	619111
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	6020B	619111

Analysis Batch: 619328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-1	2022-12-F-A3-20240702-01	Total Recoverable	Water	6010D	619111
240-207259-2	2022-13-F-A3-20240702-01	Total Recoverable	Water	6010D	619111
240-207259-3	2022-14-F-A3-20240702-01	Total Recoverable	Water	6010D	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6010D	619111
LCS 240-619111/2-A	Lab Control Sample	Total Recoverable	Water	6010D	619111

Analysis Batch: 619445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-2	2022-13-F-A3-20240702-01	Total Recoverable	Water	6020B	619111
240-207259-3	2022-14-F-A3-20240702-01	Total Recoverable	Water	6020B	619111

General Chemistry

Analysis Batch: 619041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-1	2022-12-F-A3-20240702-01	Total/NA	Water	SM 2540C	
240-207259-2	2022-13-F-A3-20240702-01	Total/NA	Water	SM 2540C	
240-207259-3	2022-14-F-A3-20240702-01	Total/NA	Water	SM 2540C	
MB 240-619041/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-619041/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-1	2022-12-F-A3-20240702-01	Total/NA	Water	2320B-1997	
240-207259-2	2022-13-F-A3-20240702-01	Total/NA	Water	2320B-1997	
240-207259-3	2022-14-F-A3-20240702-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-1	2022-12-F-A3-20240702-01	Total/NA	Water	300.0	
240-207259-1	2022-12-F-A3-20240702-01	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 619389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207259-2	2022-13-F-A3-20240702-01	Total/NA	Water	300.0	
240-207259-2	2022-13-F-A3-20240702-01	Total/NA	Water	300.0	
240-207259-3	2022-14-F-A3-20240702-01	Total/NA	Water	300.0	
240-207259-3	2022-14-F-A3-20240702-01	Total/NA	Water	300.0	
MB 240-619389/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619389/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207259-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-12-F-A3-20240702-01
Lab Sample ID: 240-207259-1

Date Collected: 07/02/24 12:35
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6010D		1	619328	RKT	EET CLE	07/09/24 13:30
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 20:18
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:20
Total/NA	Analysis	300.0		1	619389	JMR	EET CLE	07/11/24 06:44
Total/NA	Analysis	300.0		5	619389	JMR	EET CLE	07/11/24 07:44
Total/NA	Analysis	SM 2540C		1	619041	UWU2	EET CLE	07/08/24 08:38

Client Sample ID: 2022-13-F-A3-20240702-01
Lab Sample ID: 240-207259-2

Date Collected: 07/02/24 14:35
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6010D		1	619328	RKT	EET CLE	07/09/24 13:34
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 20:26
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		10	619445	AJC	EET CLE	07/10/24 14:05
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:26
Total/NA	Analysis	300.0		5	619389	JMR	EET CLE	07/11/24 08:05
Total/NA	Analysis	300.0		20	619389	JMR	EET CLE	07/11/24 08:25
Total/NA	Analysis	SM 2540C		1	619041	UWU2	EET CLE	07/08/24 08:38

Client Sample ID: 2022-14-F-A3-20240702-01
Lab Sample ID: 240-207259-3

Date Collected: 07/02/24 15:37
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6010D		1	619328	RKT	EET CLE	07/09/24 13:38
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 20:29
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		10	619445	AJC	EET CLE	07/10/24 14:39
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:31
Total/NA	Analysis	300.0		10	619389	JMR	EET CLE	07/11/24 08:45
Total/NA	Analysis	300.0		100	619389	JMR	EET CLE	07/11/24 09:05
Total/NA	Analysis	SM 2540C		1	619041	UWU2	EET CLE	07/08/24 08:38

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207259-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Columbus
209

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Bobby Ceste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-12-F-A3-20240702-01	7-2-24	1235	G	W	N		1	1	1		
2022-13-F-A3-20240702-01	7-2-24	1435	G	W	N		1	1	1		
2022-14-F-A3-20240702-01	7-2-24	1537	G	W	N		1	1	1		

240-207259 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Ceste	7-3-24 / 0945	KEMRON	Ashley Deal	7-3-24 1132	ETA
2	Ashley Deal	7-3-24 1700	ETA		7-5-24 800	EC
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins - Cleveland Sample Receipt Form/Narrative Login # : 240-[illegible]
Barberton Facility

Client Lightstone Site Name

Cooler Received on 7-5-24 Opened on 7-5-24

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # 22 Foam Box Client Cooler Box Other

Packing material used. (Bubble Wrap) Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(N)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC339814
14. Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	(No) NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : 207259

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	3.1	3.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: ~~22~~	1.1	1.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: ~~22~~	1.2	1.1	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

7/5/2024

Login Container Summary Report

240-207259

7/11/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A3-20240702-01	240-207259-A-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20240702-01	240-207259-B-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20240702-01	240-207259-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A3-20240702-01	240-207259-A-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20240702-01	240-207259-B-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20240702-01	240-207259-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-A3-20240702-01	240-207259-A-3	Plastic 250ml - unpreserved				
2022-14-F-A3-20240702-01	240-207259-B-3	Plastic 250ml - unpreserved				
2022-14-F-A3-20240702-01	240-207259-C-3	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
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JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207260-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207260-1 — Eurofins Cleveland

Job Narrative
240-207260-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/5/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.0°C, 1.1°C and 3.0°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-14-F-A4-20240702-01 (240-207260-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207260-1	2022-12-F-A4-20240702-01	Water	07/02/24 12:35	07/05/24 08:00
240-207260-2	2022-13-F-A4-20240702-01	Water	07/02/24 14:35	07/05/24 08:00
240-207260-3	2022-14-F-A4-20240702-01	Water	07/02/24 15:37	07/05/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Client Sample ID: 2022-12-F-A4-20240702-01

Lab Sample ID: 240-207260-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.70	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Barium	14		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	81000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.26	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	18		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.1	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	100000		1000	330	ug/L	1		6020B	Total Recoverable
Thallium	0.24	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.12		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-13-F-A4-20240702-01

Lab Sample ID: 240-207260-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.1	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	490		5.0	2.2	ug/L	1		6020B	Total Recoverable
Beryllium	0.64	J	1.0	0.62	ug/L	1		6020B	Total Recoverable
Cadmium	0.28	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	27000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.48	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	36		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	7500		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	55		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1500000		10000	3300	ug/L	10		6020B	Total Recoverable
Thallium	0.36	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.5		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Client Sample ID: 2022-14-F-A4-20240702-01

Lab Sample ID: 240-207260-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.4	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	1400		5.0	2.2	ug/L	1		6020B	Total Recoverable
Cadmium	0.25	J	1.0	0.20	ug/L	1		6020B	Total Recoverable
Calcium	280000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	25		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.6		1.0	0.19	ug/L	1		6020B	Total Recoverable
Lead	3.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	140		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	81000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	18		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	10000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.0	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	5100000		50000	16000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.34	J	0.50	0.24	mg/L	10		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-12-F-A4-20240702-01
Date Collected: 07/02/24 12:35
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207260-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.70**	**J**	2.0	0.57	ug/L		07/08/24 14:00	07/09/24 17:44	1
Arsenic	ND		5.0	0.75	ug/L		07/08/24 14:00	07/09/24 17:44	1
Barium	**14**		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 17:44	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/09/24 17:44	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:44	1
Calcium	**81000**		1000	250	ug/L		07/08/24 14:00	07/09/24 17:44	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 17:44	1
Cobalt	**0.26**	**J**	1.0	0.19	ug/L		07/08/24 14:00	07/09/24 17:44	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 17:44	1
Lithium	**18**		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 17:44	1
Magnesium	**24000**		1000	61	ug/L		07/08/24 14:00	07/09/24 17:44	1
Molybdenum	**1.1**	**J**	5.0	1.1	ug/L		07/08/24 14:00	07/09/24 17:44	1
Potassium	**2800**		1000	220	ug/L		07/08/24 14:00	07/09/24 17:44	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 17:44	1
Sodium	**100000**		1000	330	ug/L		07/08/24 14:00	07/09/24 17:44	1
Thallium	**0.24**	**J**	1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:44	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**280**		5.0	2.6	mg/L			07/08/24 17:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**280**		5.0	2.6	mg/L			07/08/24 17:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:36	1
Fluoride (EPA 300.0-1993 R2.1)	**0.12**		0.050	0.024	mg/L			07/13/24 04:31	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111	U	0.0966	0.0971	1.00	0.147	pCi/L	07/09/24 07:42	07/31/24 10:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.3*		*30 - 110*	*07/09/24 07:42*	*07/31/24 10:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0591	U	0.311	0.311	1.00	0.597	pCi/L	07/09/24 07:47	07/25/24 12:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.3*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*
Y Carrier	*81.9*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Client Sample ID: 2022-12-F-A4-20240702-01
Date Collected: 07/02/24 12:35
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207260-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0520	U	0.326	0.326	5.00	0.597	pCi/L		07/31/24 17:23	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Client Sample ID: 2022-13-F-A4-20240702-01

Date Collected: 07/02/24 14:35
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207260-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.57	ug/L		07/08/24 14:00	07/09/24 17:56	1
Arsenic	1.2	J	5.0	0.75	ug/L		07/08/24 14:00	07/09/24 17:56	1
Barium	490		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 17:56	1
Beryllium	0.64	J	1.0	0.62	ug/L		07/08/24 14:00	07/09/24 17:56	1
Cadmium	0.28	J	1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:56	1
Calcium	27000		1000	250	ug/L		07/08/24 14:00	07/09/24 17:56	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 17:56	1
Cobalt	0.48	J	1.0	0.19	ug/L		07/08/24 14:00	07/09/24 17:56	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 17:56	1
Lithium	36		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 17:56	1
Magnesium	7500		1000	61	ug/L		07/08/24 14:00	07/09/24 17:56	1
Molybdenum	55		5.0	1.1	ug/L		07/08/24 14:00	07/09/24 17:56	1
Potassium	3300		1000	220	ug/L		07/08/24 14:00	07/09/24 17:56	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 17:56	1
Sodium	1500000		10000	3300	ug/L		07/08/24 14:00	07/11/24 10:24	10
Thallium	0.36	J	1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			07/08/24 17:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			07/08/24 17:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:42	1
Fluoride (EPA 300.0-1993 R2.1)	1.5		0.25	0.12	mg/L			07/13/24 04:50	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.497		0.174	0.179	1.00	0.174	pCi/L	07/09/24 07:42	07/31/24 10:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.8*		*30 - 110*	*07/09/24 07:42*	*07/31/24 10:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.923		0.476	0.484	1.00	0.643	pCi/L	07/09/24 07:47	07/25/24 12:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.8*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*
Y Carrier	*81.1*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207260-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-13-F-A4-20240702-01
Lab Sample ID: 240-207260-2
Date Collected: 07/02/24 14:35
Matrix: Water
Date Received: 07/05/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.42		0.507	0.516	5.00	0.643	pCi/L		07/31/24 17:23	1

Client Sample ID: 2022-14-F-A4-20240702-01
Date Collected: 07/02/24 15:37
Date Received: 07/05/24 08:00

Lab Sample ID: 240-207260-3
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.4	J	2.0	0.57	ug/L		07/08/24 14:00	07/09/24 17:59	1
Arsenic	2.6	J	5.0	0.75	ug/L		07/08/24 14:00	07/09/24 17:59	1
Barium	1400		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 17:59	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/09/24 17:59	1
Cadmium	0.25	J	1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:59	1
Calcium	280000		1000	250	ug/L		07/08/24 14:00	07/09/24 17:59	1
Chromium	25		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 17:59	1
Cobalt	4.6		1.0	0.19	ug/L		07/08/24 14:00	07/09/24 17:59	1
Lead	3.6		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 17:59	1
Lithium	140		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 17:59	1
Magnesium	81000		1000	61	ug/L		07/08/24 14:00	07/09/24 17:59	1
Molybdenum	18		5.0	1.1	ug/L		07/08/24 14:00	07/09/24 17:59	1
Potassium	10000		1000	220	ug/L		07/08/24 14:00	07/09/24 17:59	1
Selenium	1.0	J	5.0	0.89	ug/L		07/08/24 14:00	07/09/24 17:59	1
Sodium	5100000		50000	16000	ug/L		07/08/24 14:00	07/11/24 10:27	50
Thallium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	220		5.0	2.6	mg/L			07/08/24 17:49	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	220		5.0	2.6	mg/L			07/08/24 17:49	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 17:49	1
Fluoride (EPA 300.0-1993 R2.1)	0.34	J	0.50	0.24	mg/L			07/13/24 05:10	10

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.77		0.284	0.326	1.00	0.144	pCi/L	07/09/24 07:42	07/31/24 10:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*07/09/24 07:42*	*07/31/24 10:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.58		0.530	0.550	1.00	0.607	pCi/L	07/09/24 07:47	07/25/24 12:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*
Y Carrier	*81.5*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:48*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207260-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-14-F-A4-20240702-01
Lab Sample ID: 240-207260-3
Date Collected: 07/02/24 15:37
Matrix: Water
Date Received: 07/05/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.36		0.601	0.639	5.00	0.607	pCi/L		07/31/24 17:23	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207260-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207260-1	2022-12-F-A4-20240702-01	91.3
240-207260-2	2022-13-F-A4-20240702-01	92.8
240-207260-3	2022-14-F-A4-20240702-01	99.5
LCS 160-669780/2-A	Lab Control Sample	93.5
MB 160-669780/1-A	Method Blank	83.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207260-1	2022-12-F-A4-20240702-01	91.3	81.9
240-207260-2	2022-13-F-A4-20240702-01	92.8	81.1
240-207260-3	2022-14-F-A4-20240702-01	99.5	81.5
LCS 160-669781/2-A	Lab Control Sample	93.5	79.6
MB 160-669781/1-A	Method Blank	83.3	82.6

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-619117/1-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/08/24 14:00	07/09/24 17:39	1
Arsenic	ND		5.0	0.75	ug/L		07/08/24 14:00	07/09/24 17:39	1
Barium	ND		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 17:39	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/09/24 17:39	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:39	1
Calcium	ND		1000	250	ug/L		07/08/24 14:00	07/09/24 17:39	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 17:39	1
Cobalt	ND		1.0	0.19	ug/L		07/08/24 14:00	07/09/24 17:39	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 17:39	1
Lithium	ND		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 17:39	1
Magnesium	ND		1000	61	ug/L		07/08/24 14:00	07/09/24 17:39	1
Molybdenum	ND		5.0	1.1	ug/L		07/08/24 14:00	07/09/24 17:39	1
Potassium	ND		1000	220	ug/L		07/08/24 14:00	07/09/24 17:39	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 17:39	1
Sodium	ND		1000	330	ug/L		07/08/24 14:00	07/09/24 17:39	1
Thallium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 17:39	1

Lab Sample ID: LCS 240-619117/2-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.0		ug/L		98	80 - 120
Arsenic	1000	945		ug/L		94	80 - 120
Barium	1000	964		ug/L		96	80 - 120
Beryllium	500	487		ug/L		97	80 - 120
Cadmium	500	476		ug/L		95	80 - 120
Calcium	25000	24400		ug/L		97	80 - 120
Chromium	500	492		ug/L		98	80 - 120
Cobalt	500	467		ug/L		93	80 - 120
Lead	500	485		ug/L		97	80 - 120
Lithium	500	495		ug/L		99	80 - 120
Magnesium	25000	25100		ug/L		100	80 - 120
Molybdenum	500	466		ug/L		93	80 - 120
Potassium	25000	25200		ug/L		101	80 - 120
Selenium	1000	952		ug/L		95	80 - 120
Sodium	25000	24800		ug/L		99	80 - 120
Thallium	1000	977		ug/L		98	80 - 120

Lab Sample ID: 240-207260-1 MS
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-12-F-A4-20240702-01
Prep Type: Total Recoverable
Prep Batch: 619117

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.70	J	100	97.5		ug/L		97	80 - 120
Arsenic	ND		1000	931		ug/L		93	80 - 120
Barium	14		1000	952		ug/L		94	80 - 120
Beryllium	ND		500	456		ug/L		91	80 - 120
Cadmium	ND		500	455		ug/L		91	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-207260-1 MS
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-12-F-A4-20240702-01
Prep Type: Total Recoverable
Prep Batch: 619117

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	81000		25000	103000		ug/L		87	80 - 120
Chromium	ND		500	464		ug/L		93	80 - 120
Cobalt	0.26	J	500	454		ug/L		91	80 - 120
Lead	ND		500	449		ug/L		90	80 - 120
Lithium	18		500	493		ug/L		95	80 - 120
Magnesium	24000		25000	46600		ug/L		90	80 - 120
Molybdenum	1.1	J	500	462		ug/L		92	80 - 120
Potassium	2800		25000	26800		ug/L		96	80 - 120
Selenium	ND		1000	900		ug/L		90	80 - 120
Sodium	100000		25000	123000	4	ug/L		82	80 - 120
Thallium	0.24	J	1000	909		ug/L		91	80 - 120

Lab Sample ID: 240-207260-1 MSD
Matrix: Water
Analysis Batch: 619271

Client Sample ID: 2022-12-F-A4-20240702-01
Prep Type: Total Recoverable
Prep Batch: 619117

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.70	J	100	98.5		ug/L		98	80 - 120	1	20
Arsenic	ND		1000	945		ug/L		95	80 - 120	1	20
Barium	14		1000	962		ug/L		95	80 - 120	1	20
Beryllium	ND		500	475		ug/L		95	80 - 120	4	20
Cadmium	ND		500	464		ug/L		93	80 - 120	2	20
Calcium	81000		25000	106000		ug/L		98	80 - 120	3	20
Chromium	ND		500	473		ug/L		95	80 - 120	2	20
Cobalt	0.26	J	500	461		ug/L		92	80 - 120	2	20
Lead	ND		500	464		ug/L		93	80 - 120	3	20
Lithium	18		500	505		ug/L		97	80 - 120	2	20
Magnesium	24000		25000	48400		ug/L		97	80 - 120	4	20
Molybdenum	1.1	J	500	468		ug/L		94	80 - 120	1	20
Potassium	2800		25000	27100		ug/L		97	80 - 120	1	20
Selenium	ND		1000	928		ug/L		93	80 - 120	3	20
Sodium	100000		25000	127000	4	ug/L		101	80 - 120	4	20
Thallium	0.24	J	1000	938		ug/L		94	80 - 120	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-619119/1-A
Matrix: Water
Analysis Batch: 619321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 12:41	1

Lab Sample ID: LCS 240-619119/2-A
Matrix: Water
Analysis Batch: 619321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.62		ug/L		92	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-207260-1 MS
Matrix: Water
Analysis Batch: 619321

Client Sample ID: 2022-12-F-A4-20240702-01
Prep Type: Total/NA
Prep Batch: 619119

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.941		ug/L		94	80 - 120

Lab Sample ID: 240-207260-1 MSD
Matrix: Water
Analysis Batch: 619321

Client Sample ID: 2022-12-F-A4-20240702-01
Prep Type: Total/NA
Prep Batch: 619119

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.992		ug/L		99	80 - 120	5	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/30
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 13:27	1

Lab Sample ID: MB 240-619189/56
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1

Lab Sample ID: LCS 240-619189/55
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619747/3
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 16:01	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-619747/4
Matrix: Water
Analysis Batch: 619747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.66		mg/L		107	90 - 110		

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669780/1-A
Matrix: Water
Analysis Batch: 673240

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669780

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07477	U	0.0875	0.0877	1.00	0.142	pCi/L	07/09/24 07:42	07/31/24 08:17	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*07/09/24 07:42*	*07/31/24 08:17*	*1*

Lab Sample ID: LCS 160-669780/2-A
Matrix: Water
Analysis Batch: 673240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669780

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.48		1.13	1.00	0.158	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669781/1-A
Matrix: Water
Analysis Batch: 672313

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669781

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02449	U	0.303	0.303	1.00	0.566	pCi/L	07/09/24 07:47	07/25/24 12:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:28*	*1*
Y Carrier	*82.6*		*30 - 110*	*07/09/24 07:47*	*07/25/24 12:28*	*1*

Lab Sample ID: LCS 160-669781/2-A
Matrix: Water
Analysis Batch: 672313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669781

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.73	8.866		1.24	1.00	0.548	pCi/L	102	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-669781/2-A
Matrix: Water
Analysis Batch: 672313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669781

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.5		30 - 110
Y Carrier	79.6		30 - 110

Metals

Prep Batch: 619117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total Recoverable	Water	3005A	
240-207260-2	2022-13-F-A4-20240702-01	Total Recoverable	Water	3005A	
240-207260-3	2022-14-F-A4-20240702-01	Total Recoverable	Water	3005A	
MB 240-619117/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-619117/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-207260-1 MS	2022-12-F-A4-20240702-01	Total Recoverable	Water	3005A	
240-207260-1 MSD	2022-12-F-A4-20240702-01	Total Recoverable	Water	3005A	

Prep Batch: 619119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total/NA	Water	7470A	
240-207260-2	2022-13-F-A4-20240702-01	Total/NA	Water	7470A	
240-207260-3	2022-14-F-A4-20240702-01	Total/NA	Water	7470A	
MB 240-619119/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-619119/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-207260-1 MS	2022-12-F-A4-20240702-01	Total/NA	Water	7470A	
240-207260-1 MSD	2022-12-F-A4-20240702-01	Total/NA	Water	7470A	

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total Recoverable	Water	6020B	619117
240-207260-2	2022-13-F-A4-20240702-01	Total Recoverable	Water	6020B	619117
240-207260-3	2022-14-F-A4-20240702-01	Total Recoverable	Water	6020B	619117
MB 240-619117/1-A	Method Blank	Total Recoverable	Water	6020B	619117
LCS 240-619117/2-A	Lab Control Sample	Total Recoverable	Water	6020B	619117
240-207260-1 MS	2022-12-F-A4-20240702-01	Total Recoverable	Water	6020B	619117
240-207260-1 MSD	2022-12-F-A4-20240702-01	Total Recoverable	Water	6020B	619117

Analysis Batch: 619321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total/NA	Water	7470A	619119
240-207260-2	2022-13-F-A4-20240702-01	Total/NA	Water	7470A	619119
240-207260-3	2022-14-F-A4-20240702-01	Total/NA	Water	7470A	619119
MB 240-619119/1-A	Method Blank	Total/NA	Water	7470A	619119
LCS 240-619119/2-A	Lab Control Sample	Total/NA	Water	7470A	619119
240-207260-1 MS	2022-12-F-A4-20240702-01	Total/NA	Water	7470A	619119
240-207260-1 MSD	2022-12-F-A4-20240702-01	Total/NA	Water	7470A	619119

Analysis Batch: 619553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-2	2022-13-F-A4-20240702-01	Total Recoverable	Water	6020B	619117
240-207260-3	2022-14-F-A4-20240702-01	Total Recoverable	Water	6020B	619117

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total/NA	Water	2320B-1997	
240-207260-2	2022-13-F-A4-20240702-01	Total/NA	Water	2320B-1997	
240-207260-3	2022-14-F-A4-20240702-01	Total/NA	Water	2320B-1997	
MB 240-619189/30	Method Blank	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 619189 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-619189/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total/NA	Water	300.0-1993 R2.1	
240-207260-2	2022-13-F-A4-20240702-01	Total/NA	Water	300.0-1993 R2.1	
240-207260-3	2022-14-F-A4-20240702-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619747/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-619747/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 669780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total/NA	Water	PrecSep-21	
240-207260-2	2022-13-F-A4-20240702-01	Total/NA	Water	PrecSep-21	
240-207260-3	2022-14-F-A4-20240702-01	Total/NA	Water	PrecSep-21	
MB 160-669780/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669780/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 669781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207260-1	2022-12-F-A4-20240702-01	Total/NA	Water	PrecSep_0	
240-207260-2	2022-13-F-A4-20240702-01	Total/NA	Water	PrecSep_0	
240-207260-3	2022-14-F-A4-20240702-01	Total/NA	Water	PrecSep_0	
MB 160-669781/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669781/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207260-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-12-F-A4-20240702-01
Lab Sample ID: 240-207260-1

Date Collected: 07/02/24 12:35
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619117	BN	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 17:44
Total/NA	Prep	7470A			619119	BN	EET CLE	07/08/24 14:00
Total/NA	Analysis	7470A		1	619321	GK	EET CLE	07/09/24 12:44
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:36
Total/NA	Analysis	300.0-1993 R2.1		1	619747	JMR	EET CLE	07/13/24 04:31
Total/NA	Prep	PrecSep-21			669780	MLT	EET SL	07/09/24 07:42
Total/NA	Analysis	9315		1	673240	SWS	EET SL	07/31/24 10:11
Total/NA	Prep	PrecSep_0			669781	MLT	EET SL	07/09/24 07:47
Total/NA	Analysis	9320		1	672312	CMM	EET SL	07/25/24 12:48
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 17:23

Client Sample ID: 2022-13-F-A4-20240702-01
Lab Sample ID: 240-207260-2

Date Collected: 07/02/24 14:35
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619117	BN	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 17:56
Total Recoverable	Prep	3005A			619117	BN	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		10	619553	AJC	EET CLE	07/11/24 10:24
Total/NA	Prep	7470A			619119	BN	EET CLE	07/08/24 14:00
Total/NA	Analysis	7470A		1	619321	GK	EET CLE	07/09/24 12:50
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:42
Total/NA	Analysis	300.0-1993 R2.1		5	619747	JMR	EET CLE	07/13/24 04:50
Total/NA	Prep	PrecSep-21			669780	MLT	EET SL	07/09/24 07:42
Total/NA	Analysis	9315		1	673240	SWS	EET SL	07/31/24 10:11
Total/NA	Prep	PrecSep_0			669781	MLT	EET SL	07/09/24 07:47
Total/NA	Analysis	9320		1	672312	CMM	EET SL	07/25/24 12:48
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 17:23

Client Sample ID: 2022-14-F-A4-20240702-01
Lab Sample ID: 240-207260-3

Date Collected: 07/02/24 15:37
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619117	BN	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 17:59
Total Recoverable	Prep	3005A			619117	BN	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		50	619553	AJC	EET CLE	07/11/24 10:27
Total/NA	Prep	7470A			619119	BN	EET CLE	07/08/24 14:00
Total/NA	Analysis	7470A		1	619321	GK	EET CLE	07/09/24 12:55
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 17:49
Total/NA	Analysis	300.0-1993 R2.1		10	619747	JMR	EET CLE	07/13/24 05:10

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207260-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-14-F-A4-20240702-01
Lab Sample ID: 240-207260-3
Date Collected: 07/02/24 15:37
Matrix: Water
Date Received: 07/05/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			669780	MLT	EET SL	07/09/24 07:42
Total/NA	Analysis	9315		1	673240	SWS	EET SL	07/31/24 10:11
Total/NA	Prep	PrecSep_0			669781	MLT	EET SL	07/09/24 07:47
Total/NA	Analysis	9320		1	672312	CMM	EET SL	07/25/24 12:48
Total/NA	Analysis	Ra226_Ra228		1	673272	FLC	EET SL	07/31/24 17:23

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207260-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	10-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207260-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Caste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra226, Ra226Ra228, GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-12-FA4-20240702-01	7-2-24	1235	G	Water	N		1	1	1	2		
2022-13-F-A4-20240702-01	7-2-24	1435	G	Water	N		1	1	1	2		
2022-14-F-A4-20240702-01	7-2-24	1537	G	Water	N		1	1	1	2		
				Water								
				Water								

240-207260 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Caste	7-3-24/0945	KEMRON	Ashley Deal	7-3-24 1132	ETA
2	Ashley Deal	7-3-24 1100	ETA		7-5-24 800	EC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 240-72160
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by:

Cooler Received on 7-5-24 Opened on 7-5-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # 22 Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam ~~Plastic Bag~~ None Other

COOLANT ~~Wet Ice~~ Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF 0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 7	~~Yes~~	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC339814
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : 207260

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	3.1	3.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.1	1.0	Wet Ice Blue Ice Dry Ice (Water) None
(EC) Client Box Other	IR GUN #: 22	1.2	1.1	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

7/5/2024

Login Container Summary Report

240-207260

8/1/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A4-20240702-01	240-207260-A-1	Plastic 250ml - unpreserved				
2022-12-F-A4-20240702-01	240-207260-B-1	Plastic 500ml - unpreserved				
2022-12-F-A4-20240702-01	240-207260-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A4-20240702-01	240-207260-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240702-01	240-207260-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4-20240702-01	240-207260-A-2	Plastic 250ml - unpreserved				
2022-13-F-A4-20240702-01	240-207260-B-2	Plastic 500ml - unpreserved				
2022-13-F-A4-20240702-01	240-207260-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A4-20240702-01	240-207260-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4-20240702-01	240-207260-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20240702-01	240-207260-A-3	Plastic 250ml - unpreserved				
2022-14-F-A4-20240702-01	240-207260-B-3	Plastic 500ml - unpreserved				
2022-14-F-A4-20240702-01	240-207260-C-3	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-A4-20240702-01	240-207260-D-3	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20240702-01	240-207260-E-3	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187200.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207260-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 8/5/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			Other:
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-12-F-A4-20240702-01 (240-207260-1)	7/2/24	12:35 Eastern		Water			X	X	X	2	
2022-13-F-A4-20240702-01 (240-207260-2)	7/2/24	14:35 Eastern		Water			X	X	X	2	
2022-14-F-A4-20240702-01 (240-207260-3)	7/2/24	15:37 Eastern		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: JESSICA RIGDON	Date/Time: 7-5-24 1330	Company ETNC	Received by: Richard Thornley	Date/Time: JUL 0 8 2024 0840	Company ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207260-1

Login Number: 207260
List Number: 2
Creator: Thornley, Richard W

List Source: Eurofins St. Louis
List Creation: 07/08/24 12:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 8/2/2024 2:00:29 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-207296-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207296-1 — Eurofins Cleveland

Job Narrative
240-207296-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/6/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207296-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207296-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207296-1	2022-06-F-A4-20240703-01	Water	07/03/24 11:25	07/06/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207296-1

Client Sample ID: 2022-06-F-A4-20240703-01

Lab Sample ID: 240-207296-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	260		5.0	2.2	ug/L	1		6020B	Total Recoverable
Calcium	62000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.2	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.93	J	1.0	0.19	ug/L	1		6020B	Total Recoverable
Lithium	13		8.0	1.7	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	15		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	230000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.75		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207296-1

Client Sample ID: 2022-06-F-A4-20240703-01

Date Collected: 07/03/24 11:25
Date Received: 07/06/24 08:00

Lab Sample ID: 240-207296-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/08/24 14:00	07/09/24 21:10	1
Arsenic	**1.2**	**J**	5.0	0.75	ug/L		07/08/24 14:00	07/09/24 21:10	1
Barium	**260**		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 21:10	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/10/24 14:47	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 21:10	1
Calcium	**62000**		1000	250	ug/L		07/08/24 14:00	07/09/24 21:10	1
Chromium	**1.2**	**J**	5.0	1.2	ug/L		07/08/24 14:00	07/09/24 21:10	1
Cobalt	**0.93**	**J**	1.0	0.19	ug/L		07/08/24 14:00	07/09/24 21:10	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 21:10	1
Lithium	**13**		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 21:10	1
Magnesium	**13000**		1000	61	ug/L		07/08/24 14:00	07/09/24 21:10	1
Molybdenum	**15**		5.0	1.1	ug/L		07/08/24 14:00	07/09/24 21:10	1
Potassium	**2200**		1000	220	ug/L		07/08/24 14:00	07/09/24 21:10	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 21:10	1
Sodium	**230000**		1000	330	ug/L		07/08/24 14:00	07/09/24 21:10	1
Thallium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 21:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 11:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**500**		5.0	2.6	mg/L			07/08/24 18:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**500**		5.0	2.6	mg/L			07/08/24 18:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 18:10	1
Fluoride (EPA 300.0-1993 R2.1)	**0.75**		0.050	0.024	mg/L			07/12/24 16:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.787**		0.193	0.206	1.00	0.151	pCi/L	07/10/24 07:37	08/01/24 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*30 - 110*	*07/10/24 07:37*	*08/01/24 08:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.524	U	0.441	0.444	1.00	0.685	pCi/L	07/10/24 07:41	07/24/24 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*30 - 110*	*07/10/24 07:41*	*07/24/24 12:43*	*1*
Y Carrier	*81.9*		*30 - 110*	*07/10/24 07:41*	*07/24/24 12:43*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207296-1

Client Sample ID: 2022-06-F-A4-20240703-01
Date Collected: 07/03/24 11:25
Date Received: 07/06/24 08:00

Lab Sample ID: 240-207296-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.31		0.481	0.489	5.00	0.685	pCi/L		08/02/24 12:50	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-207296-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-207296-1	2022-06-F-A4-20240703-01	93.8
LCS 160-669956/2-A	Lab Control Sample	95.8
MB 160-669956/1-A	Method Blank	96.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-207296-1	2022-06-F-A4-20240703-01	93.8	81.9
LCS 160-669957/2-A	Lab Control Sample	95.8	83.4
MB 160-669957/1-A	Method Blank	96.3	81.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		07/08/24 14:00	07/09/24 19:55	1
Arsenic	ND		5.0	0.75	ug/L		07/08/24 14:00	07/09/24 19:55	1
Barium	ND		5.0	2.2	ug/L		07/08/24 14:00	07/09/24 19:55	1
Beryllium	ND		1.0	0.62	ug/L		07/08/24 14:00	07/09/24 19:55	1
Cadmium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 19:55	1
Calcium	ND		1000	250	ug/L		07/08/24 14:00	07/09/24 19:55	1
Chromium	ND		5.0	1.2	ug/L		07/08/24 14:00	07/09/24 19:55	1
Cobalt	ND		1.0	0.19	ug/L		07/08/24 14:00	07/09/24 19:55	1
Lead	ND		1.0	0.45	ug/L		07/08/24 14:00	07/09/24 19:55	1
Lithium	ND		8.0	1.7	ug/L		07/08/24 14:00	07/09/24 19:55	1
Magnesium	ND		1000	61	ug/L		07/08/24 14:00	07/09/24 19:55	1
Molybdenum	ND		5.0	1.1	ug/L		07/08/24 14:00	07/09/24 19:55	1
Potassium	ND		1000	220	ug/L		07/08/24 14:00	07/09/24 19:55	1
Selenium	ND		5.0	0.89	ug/L		07/08/24 14:00	07/09/24 19:55	1
Sodium	ND		1000	330	ug/L		07/08/24 14:00	07/09/24 19:55	1
Thallium	ND		1.0	0.20	ug/L		07/08/24 14:00	07/09/24 19:55	1

Lab Sample ID: LCS 240-619111/3-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	95.7		ug/L		96	80 - 120
Arsenic	1000	878		ug/L		88	80 - 120
Barium	1000	936		ug/L		94	80 - 120
Beryllium	500	407		ug/L		81	80 - 120
Cadmium	500	474		ug/L		95	80 - 120
Calcium	25000	23300		ug/L		93	80 - 120
Chromium	500	479		ug/L		96	80 - 120
Cobalt	500	442		ug/L		88	80 - 120
Lead	500	468		ug/L		94	80 - 120
Lithium	500	467		ug/L		93	80 - 120
Magnesium	25000	23600		ug/L		94	80 - 120
Molybdenum	500	450		ug/L		90	80 - 120
Potassium	25000	23800		ug/L		95	80 - 120
Selenium	1000	888		ug/L		89	80 - 120
Sodium	25000	23700		ug/L		95	80 - 120
Thallium	1000	945		ug/L		94	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-619116/1-A
Matrix: Water
Analysis Batch: 619321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		07/08/24 14:00	07/09/24 11:14	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-619116/2-A
Matrix: Water
Analysis Batch: 619321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.81		ug/L		96	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/56
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1

Lab Sample ID: MB 240-619189/83
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 18:07	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 18:07	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 18:07	1

Lab Sample ID: LCS 240-619189/82
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Lab Sample ID: 240-207296-1 DU
Matrix: Water
Analysis Batch: 619189

Client Sample ID: 2022-06-F-A4-20240703-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	500		504		mg/L		0.06	20
Bicarbonate Alkalinity as CaCO3	500		504		mg/L		0.06	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619394/3
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			07/12/24 07:26	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-619394/4
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.58		mg/L		103	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-669956/1-A
Matrix: Water
Analysis Batch: 673420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669956

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04221	U	0.0581	0.0582	1.00	0.0980	pCi/L	07/10/24 07:37	08/01/24 08:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*30 - 110*	*07/10/24 07:37*	*08/01/24 08:28*	*1*

Lab Sample ID: LCS 160-669956/2-A
Matrix: Water
Analysis Batch: 673420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669956

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	11.3	10.15		1.07	1.00	0.129	pCi/L	90	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.8*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-669957/1-A
Matrix: Water
Analysis Batch: 672159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669957

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2213	U	0.298	0.299	1.00	0.612	pCi/L	07/10/24 07:41	07/24/24 12:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.3*		*30 - 110*	*07/10/24 07:41*	*07/24/24 12:42*	*1*
Y Carrier	*81.5*		*30 - 110*	*07/10/24 07:41*	*07/24/24 12:42*	*1*

Lab Sample ID: LCS 160-669957/2-A
Matrix: Water
Analysis Batch: 672159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669957

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.74	8.545		1.21	1.00	0.542	pCi/L	98	75 - 125

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-669957/2-A
Matrix: Water
Analysis Batch: 672159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669957

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.8		30 - 110
Y Carrier	83.4		30 - 110

Metals

Prep Batch: 619111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total Recoverable	Water	3005A	
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 619116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total/NA	Water	7470A	
MB 240-619116/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-619116/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total Recoverable	Water	6020B	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6020B	619111
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	6020B	619111

Analysis Batch: 619321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total/NA	Water	7470A	619116
MB 240-619116/1-A	Method Blank	Total/NA	Water	7470A	619116
LCS 240-619116/2-A	Lab Control Sample	Total/NA	Water	7470A	619116

Analysis Batch: 619445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total Recoverable	Water	6020B	619111

General Chemistry

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total/NA	Water	2320B-1997	
MB 240-619189/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/82	Lab Control Sample	Total/NA	Water	2320B-1997	
240-207296-1 DU	2022-06-F-A4-20240703-01	Total/NA	Water	2320B-1997	

Analysis Batch: 619394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-619394/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-619394/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 669956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total/NA	Water	PrecSep-21	
MB 160-669956/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-669956/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207296-1
Project/Site: Federal CCR Wells - App IV

Rad

Prep Batch: 669957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207296-1	2022-06-F-A4-20240703-01	Total/NA	Water	PrecSep_0	
MB 160-669957/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-669957/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207296-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-06-F-A4-20240703-01
Lab Sample ID: 240-207296-1

Date Collected: 07/03/24 11:25
Matrix: Water
Date Received: 07/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 21:10
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619445	AJC	EET CLE	07/10/24 14:47
Total/NA	Prep	7470A			619116	TQ6W	EET CLE	07/08/24 14:00
Total/NA	Analysis	7470A		1	619321	GK	EET CLE	07/09/24 11:45
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 18:10
Total/NA	Analysis	300.0-1993 R2.1		1	619394	JMR	EET CLE	07/12/24 16:27
Total/NA	Prep	PrecSep-21			669956	MLT	EET SL	07/10/24 07:37
Total/NA	Analysis	9315		1	673420	SCB	EET SL	08/01/24 08:29
Total/NA	Prep	PrecSep_0			669957	MLT	EET SL	07/10/24 07:41
Total/NA	Analysis	9320		1	672159	SCB	EET SL	07/24/24 12:43
Total/NA	Analysis	Ra226_Ra228		1	673588	SCB	EET SL	08/02/24 12:50

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207296-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	07-16-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24 *
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-24 *
Missouri	State	780	06-30-25
Nevada	State	MO00054	10-31-24
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	10-01-24
New York	NELAP	11616	03-31-25
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207296-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

1.9 / 1.8 Columbus 209

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Client Information	Sampler: Bobby Cgste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-06-F-A4-20240703-01	7-3-24	1125	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								
				Water								

240-207296 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Ryan Smith	7-5-24/0940	Kemron	Ashley Deal	7.5.24 1145	T-TA
2	Ashley Deal	7.5.24 1700	EIA		7-6-24 800	EC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins - Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Site Name

Cooler Received on 7-6-24 Opened on 7-6-24

Cooler unpacked by:

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp 1.9 °C Corrected Cooler Temp 1.8 °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4	*Did custody papers accompany the sample(s)?*	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC339814
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

7/6/2024

Login Container Summary Report

240-207296

8/2/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-06-F-A4-20240703-01	240-207296-A-1	Plastic 250ml - unpreserved				
2022-06-F-A4-20240703-01	240-207296-B-1	Plastic 500ml - unpreserved				
2022-06-F-A4-20240703-01	240-207296-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-06-F-A4-20240703-01	240-207296-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-A4-20240703-01	240-207296-E-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-187253.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-207296-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/22/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal GWM Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Special Instructions/Note:
2022-06-F-A4-20240703-01 (240-207296-1)	7/3/24	11:25 Eastern		Water	X	X	X	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: Rachelle Harrell	Date/Time: 7-8-24 1010	Company EEINC	Received by: Richard Thornley	Date/Time: JUL 09 2024 0935	Company ETASTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

8/2/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-207296-1

Login Number: 207296
List Number: 2
Creator: Thornley, Richard W

List Source: Eurofins St. Louis
List Creation: 07/09/24 02:24 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 7/15/2024 9:34:21 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-207297-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
7/15/2024 9:34:21 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-207297-1 — Eurofins Cleveland

Job Narrative
240-207297-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 7/6/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207297-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207297-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-207297-1	2022-06-F-A3-20240703-01	Water	07/03/24 11:25	07/06/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207297-1

Client Sample ID: 2022-06-F-A3-20240703-01

Lab Sample ID: 240-207297-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	120		100	57	ug/L	1		6010D	Total Recoverable
Calcium	59000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	230000		1000	330	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	150		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.75		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	790		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-207297-1

Client Sample ID: 2022-06-F-A3-20240703-01

Lab Sample ID: 240-207297-1

Date Collected: 07/03/24 11:25

Matrix: Water

Date Received: 07/06/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120		100	57	ug/L		07/08/24 14:00	07/09/24 13:43	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	59000		1000	250	ug/L		07/08/24 14:00	07/09/24 20:31	1
Magnesium	13000		1000	61	ug/L		07/08/24 14:00	07/09/24 20:31	1
Potassium	2300		1000	220	ug/L		07/08/24 14:00	07/09/24 20:31	1
Sodium	230000		1000	330	ug/L		07/08/24 14:00	07/09/24 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			07/08/24 18:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			07/08/24 18:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			07/08/24 18:24	1
Chloride (EPA 300.0)	150		1.0	0.13	mg/L			07/12/24 12:07	1
Fluoride (EPA 300.0)	0.75		0.050	0.024	mg/L			07/12/24 12:07	1
Sulfate (EPA 300.0)	33		1.0	0.35	mg/L			07/12/24 12:07	1
Total Dissolved Solids (SM 2540C)	790		10	7.8	mg/L			07/08/24 08:38	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619328

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		07/08/24 14:00	07/09/24 12:34	1

Lab Sample ID: LCS 240-619111/2-A
Matrix: Water
Analysis Batch: 619328

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	988		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-619111/1-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		07/08/24 14:00	07/09/24 19:55	1
Magnesium	ND		1000	61	ug/L		07/08/24 14:00	07/09/24 19:55	1
Potassium	ND		1000	220	ug/L		07/08/24 14:00	07/09/24 19:55	1
Sodium	ND		1000	330	ug/L		07/08/24 14:00	07/09/24 19:55	1

Lab Sample ID: LCS 240-619111/3-A
Matrix: Water
Analysis Batch: 619271

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 619111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	23300		ug/L		93	80 - 120
Magnesium	25000	23600		ug/L		94	80 - 120
Potassium	25000	23800		ug/L		95	80 - 120
Sodium	25000	23700		ug/L		95	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-619189/56
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 15:40	1

Lab Sample ID: MB 240-619189/83
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			07/08/24 18:07	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 18:07	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			07/08/24 18:07	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-619189/82
Matrix: Water
Analysis Batch: 619189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-619394/3
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			07/12/24 07:26	1
Fluoride	ND		0.050	0.024	mg/L			07/12/24 07:26	1
Sulfate	ND		1.0	0.35	mg/L			07/12/24 07:26	1

Lab Sample ID: LCS 240-619394/4
Matrix: Water
Analysis Batch: 619394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.5		mg/L		103	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-619041/1
Matrix: Water
Analysis Batch: 619041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			07/08/24 08:38	1

Lab Sample ID: LCS 240-619041/2
Matrix: Water
Analysis Batch: 619041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	671		mg/L		93	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207297-1
Project/Site: Federal CCR Wells - App III

Metals

Prep Batch: 619111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207297-1	2022-06-F-A3-20240703-01	Total Recoverable	Water	3005A	
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-619111/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 619271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207297-1	2022-06-F-A3-20240703-01	Total Recoverable	Water	6020B	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6020B	619111
LCS 240-619111/3-A	Lab Control Sample	Total Recoverable	Water	6020B	619111

Analysis Batch: 619328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207297-1	2022-06-F-A3-20240703-01	Total Recoverable	Water	6010D	619111
MB 240-619111/1-A	Method Blank	Total Recoverable	Water	6010D	619111
LCS 240-619111/2-A	Lab Control Sample	Total Recoverable	Water	6010D	619111

General Chemistry

Analysis Batch: 619041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207297-1	2022-06-F-A3-20240703-01	Total/NA	Water	SM 2540C	
MB 240-619041/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-619041/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 619189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207297-1	2022-06-F-A3-20240703-01	Total/NA	Water	2320B-1997	
MB 240-619189/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-619189/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-619189/82	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 619394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-207297-1	2022-06-F-A3-20240703-01	Total/NA	Water	300.0	
MB 240-619394/3	Method Blank	Total/NA	Water	300.0	
LCS 240-619394/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207297-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-06-F-A3-20240703-01
Lab Sample ID: 240-207297-1

Date Collected: 07/03/24 11:25
Matrix: Water
Date Received: 07/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6010D		1	619328	RKT	EET CLE	07/09/24 13:43
Total Recoverable	Prep	3005A			619111	TQ6W	EET CLE	07/08/24 14:00
Total Recoverable	Analysis	6020B		1	619271	AJC	EET CLE	07/09/24 20:31
Total/NA	Analysis	2320B-1997		1	619189	JMR	EET CLE	07/08/24 18:24
Total/NA	Analysis	300.0		1	619394	JMR	EET CLE	07/12/24 12:07
Total/NA	Analysis	SM 2540C		1	619041	UWU2	EET CLE	07/08/24 08:38

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-207297-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-28-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

1.9 / 1.8 Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:

Analysis Requested

Address: 7397 OH-7	Due Date Requested:	Preservation Codes:
City: Cheshire	TAT Requested (days):	A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No	
Phone: 740-925-3171(Tel)	PO #: 2935505	
Email: taylor.huffman@lightstonegen.com	WO #:	
Project Name: Federal CCR Wells - App III	Project #: 24019633	Other:
Site: Gavin	SSOW#:	

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-06-F-AB-20240703-01	7-3-24	1125	G	W	N		1	1	1		



Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Ryan Smith	7-5-24 0940	Eurofins	Ashley Deal	7-5-24 11:45	EFA
2	Ashley Deal	7-5-24 1700	EFA		7-6-24 800	EC
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by:

Cooler Received on 7-6-24 Opened on 7-6-24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. 1.9 °C Corrected Cooler Temp. 1.8 °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC339814
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes No
17	Was a LL Hg or Me Hg trip blank present? _____	Yes No

Tests that are not checked for pH by Receiving

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

7/6/2024

Login Container Summary Report

240-207297

7/15/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-06-F-A3-20240703-01	240-207297-A-1	Plastic 500ml - unpreserved				
2022-06-F-A3-20240703-01	240-207297-B-1	Plastic 500ml - unpreserved				
2022-06-F-A3-20240703-01	240-207297-C-1	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 9/17/2024 9:39:53 AM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-210458-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
9/17/2024 9:39:53 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-210458-1 Eurofins Cleveland

Job Narrative
240-210458-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/31/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A3-20240829--01 (240-210458-1) and DUP-001-F-A3-20240829--01 (240-210458-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210458-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210458-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-210458-1	9631-F-A3-20240829--01	Water	08/29/24 10:30	08/31/24 08:00
240-210458-2	DUP-001-F-A3-20240829--01	Water	08/29/24 00:00	08/31/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210458-1

Client Sample ID: 9631-F-A3-20240829--01 — Lab Sample ID: 240-210458-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1100000		50000	13000	ug/L	50		6020B	Total Recoverable
Magnesium	380000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	20000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	8700000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	80		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	80		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	30000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	41000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-A3-20240829--01 — Lab Sample ID: 240-210458-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1500000		50000	13000	ug/L	50		6020B	Total Recoverable
Magnesium	380000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	20000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	12000000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	81		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	81		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	29000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	43000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210458-1

Client Sample ID: 9631-F-A3-20240829--01
Date Collected: 08/29/24 10:30
Date Received: 08/31/24 08:00

Lab Sample ID: 240-210458-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		09/03/24 14:00	09/05/24 20:19	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1100000		50000	13000	ug/L		09/03/24 14:00	09/05/24 14:46	50
Magnesium	380000		1000	61	ug/L		09/03/24 14:00	09/04/24 17:21	1
Potassium	20000		1000	220	ug/L		09/03/24 14:00	09/04/24 17:21	1
Sodium	8700000		50000	44000	ug/L		09/03/24 14:00	09/05/24 14:46	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	80		5.0	2.6	mg/L			09/06/24 02:24	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	80		5.0	2.6	mg/L			09/06/24 02:24	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 02:24	1
Chloride (EPA 300.0)	30000		1000	130	mg/L			09/16/24 22:20	1000
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			09/14/24 03:09	50
Sulfate (EPA 300.0)	ND		1000	350	mg/L			09/16/24 22:20	1000
Total Dissolved Solids (SM 2540C)	41000		1000	780	mg/L			09/05/24 16:29	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210458-1

Client Sample ID: DUP-001-F-A3-20240829--01

Date Collected: 08/29/24 00:00
Date Received: 08/31/24 08:00

Lab Sample ID: 240-210458-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		09/03/24 14:00	09/06/24 15:57	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1500000		50000	13000	ug/L		09/03/24 14:00	09/05/24 14:48	50
Magnesium	380000		1000	61	ug/L		09/03/24 14:00	09/04/24 17:23	1
Potassium	20000		1000	220	ug/L		09/03/24 14:00	09/04/24 17:23	1
Sodium	12000000		50000	44000	ug/L		09/03/24 14:00	09/05/24 14:48	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	81		5.0	2.6	mg/L			09/06/24 02:29	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	81		5.0	2.6	mg/L			09/06/24 02:29	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 02:29	1
Chloride (EPA 300.0)	29000		1000	130	mg/L			09/16/24 22:42	1000
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			09/14/24 03:45	50
Sulfate (EPA 300.0)	ND		1000	350	mg/L			09/16/24 22:42	1000
Total Dissolved Solids (SM 2540C)	43000		1000	780	mg/L			09/05/24 16:29	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-625554/1-A
Matrix: Water
Analysis Batch: 625997

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 625554

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/03/24 14:00	09/05/24 18:37	1

Lab Sample ID: LCS 240-625554/2-A
Matrix: Water
Analysis Batch: 625997

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 625554

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1080		ug/L		108	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-625554/1-A
Matrix: Water
Analysis Batch: 625910

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 625554

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		09/03/24 14:00	09/04/24 16:22	1
Magnesium	ND		1000	61	ug/L		09/03/24 14:00	09/04/24 16:22	1
Potassium	ND		1000	220	ug/L		09/03/24 14:00	09/04/24 16:22	1
Sodium	ND		1000	880	ug/L		09/03/24 14:00	09/04/24 16:22	1

Lab Sample ID: LCS 240-625554/3-A
Matrix: Water
Analysis Batch: 625910

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 625554

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	25800		ug/L		103	80 - 120
Magnesium	25000	24900		ug/L		100	80 - 120
Potassium	25000	25800		ug/L		103	80 - 120
Sodium	25000	25500		ug/L		102	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-626212/56
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1

Lab Sample ID: MB 240-626212/83
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/06/24 02:05	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/06/24 02:05	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/06/24 02:05	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-626212/82
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	279		mg/L		100	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-627010/3
Matrix: Water
Analysis Batch: 627010

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/14/24 01:21	1
Fluoride	ND		0.050	0.024	mg/L			09/14/24 01:21	1
Sulfate	ND		1.0	0.35	mg/L			09/14/24 01:21	1

Lab Sample ID: LCS 240-627010/4
Matrix: Water
Analysis Batch: 627010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.7		mg/L		99	90 - 110
Fluoride	2.50	2.44		mg/L		97	90 - 110
Sulfate	50.0	49.6		mg/L		99	90 - 110

Lab Sample ID: MB 240-627213/4
Matrix: Water
Analysis Batch: 627213

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/16/24 16:54	1
Fluoride	ND		0.050	0.024	mg/L			09/16/24 16:54	1
Sulfate	ND		1.0	0.35	mg/L			09/16/24 16:54	1

Lab Sample ID: LCS 240-627213/5
Matrix: Water
Analysis Batch: 627213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.54		mg/L		102	90 - 110
Sulfate	50.0	51.5		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-625874/1
Matrix: Water
Analysis Batch: 625874

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/05/24 08:50	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-625874/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 625874

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	626		mg/L		87	80 - 120

Metals

Prep Batch: 625554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total Recoverable	Water	3005A	
240-210458-2	DUP-001-F-A3-20240829--01	Total Recoverable	Water	3005A	
MB 240-625554/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-625554/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-625554/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 625910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total Recoverable	Water	6020B	625554
240-210458-2	DUP-001-F-A3-20240829--01	Total Recoverable	Water	6020B	625554
MB 240-625554/1-A	Method Blank	Total Recoverable	Water	6020B	625554
LCS 240-625554/3-A	Lab Control Sample	Total Recoverable	Water	6020B	625554

Analysis Batch: 625997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total Recoverable	Water	6010D	625554
MB 240-625554/1-A	Method Blank	Total Recoverable	Water	6010D	625554
LCS 240-625554/2-A	Lab Control Sample	Total Recoverable	Water	6010D	625554

Analysis Batch: 626042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total Recoverable	Water	6020B	625554
240-210458-2	DUP-001-F-A3-20240829--01	Total Recoverable	Water	6020B	625554

Analysis Batch: 626156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-2	DUP-001-F-A3-20240829--01	Total Recoverable	Water	6010D	625554

General Chemistry

Analysis Batch: 625874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total/NA	Water	SM 2540C	
240-210458-2	DUP-001-F-A3-20240829--01	Total/NA	Water	SM 2540C	
MB 240-625874/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-625874/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 626212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total/NA	Water	2320B-1997	
240-210458-2	DUP-001-F-A3-20240829--01	Total/NA	Water	2320B-1997	
MB 240-626212/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-626212/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-626212/82	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 627010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total/NA	Water	300.0	
240-210458-2	DUP-001-F-A3-20240829--01	Total/NA	Water	300.0	
MB 240-627010/3	Method Blank	Total/NA	Water	300.0	
LCS 240-627010/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210458-1
Project/Site: Federal CCR Wells - App III

General Chemistry

Analysis Batch: 627213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210458-1	9631-F-A3-20240829--01	Total/NA	Water	300.0	
240-210458-2	DUP-001-F-A3-20240829--01	Total/NA	Water	300.0	
MB 240-627213/4	Method Blank	Total/NA	Water	300.0	
LCS 240-627213/5	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210458-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 9631-F-A3-20240829--01
Lab Sample ID: 240-210458-1

Date Collected: 08/29/24 10:30
Matrix: Water
Date Received: 08/31/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625554	BN	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6010D		1	625997	RKT	EET CLE	09/05/24 20:19
Total Recoverable	Prep	3005A			625554	BN	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		1	625910	AJC	EET CLE	09/04/24 17:21
Total Recoverable	Prep	3005A			625554	BN	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		50	626042	AJC	EET CLE	09/05/24 14:46
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 02:24
Total/NA	Analysis	300.0		1000	627213	JMR	EET CLE	09/16/24 22:20
Total/NA	Analysis	300.0		50	627010	JMR	EET CLE	09/14/24 03:09
Total/NA	Analysis	SM 2540C		1	625874	TAV2	EET CLE	09/05/24 16:29

Client Sample ID: DUP-001-F-A3-20240829--01
Lab Sample ID: 240-210458-2

Date Collected: 08/29/24 00:00
Matrix: Water
Date Received: 08/31/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625554	BN	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6010D		1	626156	RKT	EET CLE	09/06/24 15:57
Total Recoverable	Prep	3005A			625554	BN	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		1	625910	AJC	EET CLE	09/04/24 17:23
Total Recoverable	Prep	3005A			625554	BN	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		50	626042	AJC	EET CLE	09/05/24 14:48
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 02:29
Total/NA	Analysis	300.0		1000	627213	JMR	EET CLE	09/16/24 22:42
Total/NA	Analysis	300.0		50	627010	JMR	EET CLE	09/14/24 03:45
Total/NA	Analysis	SM 2540C		1	625874	TAV2	EET CLE	09/05/24 16:29

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210458-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24 *
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

~~H.t~~ ~~H.t~~ ~~Time~~ 8-31-24 COC's in OPP Coolers
2.9/3.9

Chain of Custody Record

Columbus 209 eurofins Environment Testing America

Client Information	Sampler: Bobby Castle	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
9631-F-A3-20240829-01	8-29-24	1030	G	W	N		1	1	1		
DUP-001-F-A3-20240829-01	8-29-24	—	G	W	N		1	1	1		

240-210458 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Castle	8-30-24 / 0930	KEMRON	Ashley Deal	8-30-24 1255	EDA
Ashley Deal	8-30-24 1100	EDA	JESSICA RIGDON	8-31-24 800	EGTWC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 210458
Barberton Facility

Client Lightstone Gavin Site Name

Cooler unpacked by: JESSICA RIGDON

Cooler Received on 8.31.24 Opened on 8.31.24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag (None) Other

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF +0.2 °C) Observed Cooler Temp. 2.9 °C Corrected Cooler Temp 3.1 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(Y) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No (NA)
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen

8/31/2024

Login Container Summary Report

240-210458

9/17/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A3-20240829--01	240-210458-A-1	Plastic 250ml - unpreserved				
9631-F-A3-20240829--01	240-210458-B-1	Plastic 250ml - unpreserved				
9631-F-A3-20240829--01	240-210458-C-1	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A3-20240829--01	240-210458-A-2	Plastic 250ml - unpreserved				
DUP-001-F-A3-20240829--01	240-210458-B-2	Plastic 250ml - unpreserved				
DUP-001-F-A3-20240829--01	240-210458-C-2	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/1/2024 5:23:31 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-210459-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-210459-1 Eurofins Cleveland

Job Narrative
240-210459-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/31/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 9631-F-A4-20240829-01 (240-210459-1) and DUP-001-F-A4-20240829-01 (240-210459-2). Elevated reporting limits (RLs) are provided.

Method 300.0_28D: The continuing calibration verification (CCV) associated with batch 240-628097 recovered above the upper control limit for fluoride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium-226 prep batch 160-678270

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240829-01 (240-210459-1) and DUP-001-F-A4-20240829-01 (240-210459-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 prep batch 160-678270:

The following samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. Samples with significant salt-like compounds had a native correction applied. The high concentrations of salt-like compounds can interfere with the barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance.The data have been qualified and reported. 9631-F-A4-20240829-01 (240-210459-1) and DUP-001-F-A4-20240829-01 (240-210459-2)

Method 9320_Ra228: Radium-228 prep batch 160-678271

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20240829-01 (240-210459-1) and DUP-001-F-A4-20240829-01 (240-210459-2). The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium 228 Batch 678271

160-678271
The Ba Carrier recovery was outside the upper control limit. This can be attributed to matrix interference noted during the initial preparation. The Laboratory Control Sample (LCS) has acceptable spike recovery, demonstrating proper method and instrument performance. The sample has been truncated to minimize any potential bias a high carrier/tracer recovery may have on the results. 9631-F-A4-20240829-01 (240-210459-1) and DUP-001-F-A4-20240829-01 (240-210459-2)

Job ID: 240-210459-1 (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-210459-1	9631-F-A4-20240829-01	Water	08/29/24 10:30	08/31/24 08:00
240-210459-2	DUP-001-F-A4-20240829-01	Water	08/29/24 00:00	08/31/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 9631-F-A4-20240829-01 — Lab Sample ID: 240-210459-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	41000		50	7.7	ug/L	10		6020B	Total Recoverable
Cadmium	0.15	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	1600000		10000	2500	ug/L	10		6020B	Total Recoverable
Chromium	1.2	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.1		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.49	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	330		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	460000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	2.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	13000000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	76		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	76		5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: DUP-001-F-A4-20240829-01 — Lab Sample ID: 240-210459-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	46000		50	7.7	ug/L	10		6020B	Total Recoverable
Cadmium	0.11	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	1800000		10000	2500	ug/L	10		6020B	Total Recoverable
Chromium	1.2	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.0		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	320		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	450000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	2.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	23000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	13000000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	71		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	71		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9631-F-A4-20240829-01
Date Collected: 08/29/24 10:30
Date Received: 08/31/24 08:00

Lab Sample ID: 240-210459-1
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/03/24 14:00	09/04/24 14:53	1
Arsenic	**2.3**	**J**	5.0	0.75	ug/L		09/03/24 14:00	09/04/24 14:53	1
Barium	**41000**		50	7.7	ug/L		09/03/24 14:00	09/04/24 18:42	10
Beryllium	ND		1.0	0.27	ug/L		09/03/24 14:00	09/04/24 14:53	1
Cadmium	**0.15**	**J**	1.0	0.077	ug/L		09/03/24 14:00	09/04/24 14:53	1
Calcium	**1600000**		10000	2500	ug/L		09/03/24 14:00	09/04/24 18:42	10
Chromium	**1.2**	**J**	5.0	1.2	ug/L		09/03/24 14:00	09/04/24 14:53	1
Cobalt	**2.1**		1.0	0.086	ug/L		09/03/24 14:00	09/04/24 14:53	1
Lead	**0.49**	**J**	1.0	0.45	ug/L		09/03/24 14:00	09/04/24 14:53	1
Lithium	**330**		8.0	3.4	ug/L		09/03/24 14:00	09/04/24 14:53	1
Magnesium	**460000**		1000	61	ug/L		09/03/24 14:00	09/04/24 14:53	1
Molybdenum	**2.6**	**J**	5.0	1.1	ug/L		09/03/24 14:00	09/04/24 14:53	1
Potassium	**24000**		1000	220	ug/L		09/03/24 14:00	09/04/24 14:53	1
Selenium	ND		5.0	0.89	ug/L		09/03/24 14:00	09/04/24 14:53	1
Sodium	**13000000**		50000	44000	ug/L		09/03/24 14:00	09/05/24 19:46	50
Thallium	ND		1.0	0.51	ug/L		09/03/24 14:00	09/04/24 14:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/03/24 14:00	09/04/24 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**76**		5.0	2.6	mg/L			09/06/24 02:54	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**76**		5.0	2.6	mg/L			09/06/24 02:54	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 02:54	1
Fluoride (EPA 300.0-1993 R2.1)	ND	^+	5.0	2.4	mg/L			09/26/24 11:24	100

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**33.7**		1.35	3.32	1.00	0.197	pCi/L	09/05/24 08:38	09/29/24 10:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*204*	*X*	*30 - 110*	*09/05/24 08:38*	*09/29/24 10:17*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**77.2**		2.55	7.55	1.00	0.514	pCi/L	09/05/24 08:41	09/26/24 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*204*	*X*	*30 - 110*	*09/05/24 08:41*	*09/26/24 13:38*	*1*
Y Carrier	*78.5*		*30 - 110*	*09/05/24 08:41*	*09/26/24 13:38*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210459-1

Client Sample ID: 9631-F-A4-20240829-01
Date Collected: 08/29/24 10:30
Date Received: 08/31/24 08:00

Lab Sample ID: 240-210459-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	111		2.89	8.25	5.00	0.514	pCi/L		09/30/24 12:44	1

Client Sample ID: DUP-001-F-A4-20240829-01

Lab Sample ID: 240-210459-2

Date Collected: 08/29/24 00:00

Matrix: Water

Date Received: 08/31/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/03/24 14:00	09/04/24 14:55	1
Arsenic	**2.1**	**J**	5.0	0.75	ug/L		09/03/24 14:00	09/04/24 14:55	1
Barium	**46000**		50	7.7	ug/L		09/03/24 14:00	09/04/24 18:49	10
Beryllium	ND		1.0	0.27	ug/L		09/03/24 14:00	09/04/24 14:55	1
Cadmium	**0.11**	**J**	1.0	0.077	ug/L		09/03/24 14:00	09/04/24 14:55	1
Calcium	**1800000**		10000	2500	ug/L		09/03/24 14:00	09/04/24 18:49	10
Chromium	**1.2**	**J**	5.0	1.2	ug/L		09/03/24 14:00	09/04/24 14:55	1
Cobalt	**2.0**		1.0	0.086	ug/L		09/03/24 14:00	09/04/24 14:55	1
Lead	ND		1.0	0.45	ug/L		09/03/24 14:00	09/04/24 14:55	1
Lithium	**320**		8.0	3.4	ug/L		09/03/24 14:00	09/04/24 14:55	1
Magnesium	**450000**		1000	61	ug/L		09/03/24 14:00	09/04/24 14:55	1
Molybdenum	**2.4**	**J**	5.0	1.1	ug/L		09/03/24 14:00	09/04/24 14:55	1
Potassium	**23000**		1000	220	ug/L		09/03/24 14:00	09/04/24 14:55	1
Selenium	ND		5.0	0.89	ug/L		09/03/24 14:00	09/04/24 14:55	1
Sodium	**13000000**		50000	44000	ug/L		09/03/24 14:00	09/05/24 19:49	50
Thallium	ND		1.0	0.51	ug/L		09/03/24 14:00	09/04/24 14:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/03/24 14:00	09/04/24 10:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**71**		5.0	2.6	mg/L			09/06/24 02:48	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**71**		5.0	2.6	mg/L			09/06/24 02:48	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 02:48	1
Fluoride (EPA 300.0-1993 R2.1)	ND	^+	5.0	2.4	mg/L			09/26/24 11:46	100

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**32.6**		1.35	3.23	1.00	0.190	pCi/L	09/05/24 08:38	09/29/24 10:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*222*	*X*	*30 - 110*	*09/05/24 08:38*	*09/29/24 10:17*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**78.2**		2.58	7.64	1.00	0.481	pCi/L	09/05/24 08:41	09/26/24 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*199*	*X*	*30 - 110*	*09/05/24 08:41*	*09/26/24 13:38*	*1*
Y Carrier	*77.0*		*30 - 110*	*09/05/24 08:41*	*09/26/24 13:38*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: DUP-001-F-A4-20240829-01
Lab Sample ID: 240-210459-2
Date Collected: 08/29/24 00:00
Matrix: Water
Date Received: 08/31/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	111		2.91	8.29	5.00	0.481	pCi/L		09/30/24 12:44	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210459-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
240-210459-1	9631-F-A4-20240829-01	204 X							
240-210459-2	DUP-001-F-A4-20240829-01	222 X							
LCS 160-678270/2-A	Lab Control Sample	88.9							
MB 160-678270/1-A	Method Blank	91.6							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
240-210459-1	9631-F-A4-20240829-01	204 X	78.5						
240-210459-2	DUP-001-F-A4-20240829-01	199 X	77.0						
LCS 160-678271/2-A	Lab Control Sample	88.9	77.4						
MB 160-678271/1-A	Method Blank	91.6	78.9						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-625558/1-A
Matrix: Water
Analysis Batch: 625910

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 625558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/03/24 14:00	09/04/24 14:05	1
Arsenic	ND		5.0	0.75	ug/L		09/03/24 14:00	09/04/24 14:05	1
Barium	ND		5.0	0.77	ug/L		09/03/24 14:00	09/04/24 14:05	1
Beryllium	ND		1.0	0.27	ug/L		09/03/24 14:00	09/04/24 14:05	1
Cadmium	ND		1.0	0.077	ug/L		09/03/24 14:00	09/04/24 14:05	1
Calcium	ND		1000	250	ug/L		09/03/24 14:00	09/04/24 14:05	1
Chromium	ND		5.0	1.2	ug/L		09/03/24 14:00	09/04/24 14:05	1
Cobalt	ND		1.0	0.086	ug/L		09/03/24 14:00	09/04/24 14:05	1
Lead	ND		1.0	0.45	ug/L		09/03/24 14:00	09/04/24 14:05	1
Lithium	ND		8.0	3.4	ug/L		09/03/24 14:00	09/04/24 14:05	1
Magnesium	ND		1000	61	ug/L		09/03/24 14:00	09/04/24 14:05	1
Molybdenum	ND		5.0	1.1	ug/L		09/03/24 14:00	09/04/24 14:05	1
Potassium	ND		1000	220	ug/L		09/03/24 14:00	09/04/24 14:05	1
Selenium	ND		5.0	0.89	ug/L		09/03/24 14:00	09/04/24 14:05	1
Sodium	ND		1000	880	ug/L		09/03/24 14:00	09/04/24 14:05	1
Thallium	ND		1.0	0.51	ug/L		09/03/24 14:00	09/04/24 14:05	1

Lab Sample ID: LCS 240-625558/2-A
Matrix: Water
Analysis Batch: 625910

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 625558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.5		ug/L		100	80 - 120
Arsenic	1000	956		ug/L		96	80 - 120
Barium	1000	981		ug/L		98	80 - 120
Beryllium	500	474		ug/L		95	80 - 120
Cadmium	500	499		ug/L		100	80 - 120
Calcium	25000	24900		ug/L		100	80 - 120
Chromium	500	509		ug/L		102	80 - 120
Cobalt	500	514		ug/L		103	80 - 120
Lead	500	565		ug/L		113	80 - 120
Lithium	500	465		ug/L		93	80 - 120
Magnesium	25000	24600		ug/L		98	80 - 120
Molybdenum	500	478		ug/L		96	80 - 120
Potassium	25000	25000		ug/L		100	80 - 120
Selenium	1000	1020		ug/L		102	80 - 120
Sodium	25000	24700		ug/L		99	80 - 120
Thallium	1000	1120		ug/L		112	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-625565/1-A
Matrix: Water
Analysis Batch: 625775

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 625565

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/03/24 14:00	09/04/24 10:25	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 240-625565/2-A
Matrix: Water
Analysis Batch: 625775

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 625565

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.01		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-626212/56
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1

Lab Sample ID: MB 240-626212/83
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/06/24 02:05	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/06/24 02:05	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/06/24 02:05	1

Lab Sample ID: LCS 240-626212/82
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	279		mg/L		100	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-628097/3
Matrix: Water
Analysis Batch: 628097

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND	^+	0.050	0.024	mg/L			09/26/24 09:14	1

Lab Sample ID: LCS 240-628097/4
Matrix: Water
Analysis Batch: 628097

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.74	^+	mg/L		110	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-678270/1-A
Matrix: Water
Analysis Batch: 681294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678270

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03396	U	0.125	0.125	1.00	0.237	pCi/L	09/05/24 08:38	09/27/24 18:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*30 - 110*	*09/05/24 08:38*	*09/27/24 18:55*	*1*

Lab Sample ID: LCS 160-678270/2-A
Matrix: Water
Analysis Batch: 681294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678270

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	10.33		1.24	1.00	0.248	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.9*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-678271/1-A
Matrix: Water
Analysis Batch: 681032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678271

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1161	U	0.275	0.275	1.00	0.487	pCi/L	09/05/24 08:41	09/26/24 13:32	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*30 - 110*	*09/05/24 08:41*	*09/26/24 13:32*	*1*
Y Carrier	*78.9*		*30 - 110*	*09/05/24 08:41*	*09/26/24 13:32*	*1*

Lab Sample ID: LCS 160-678271/2-A
Matrix: Water
Analysis Batch: 681032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678271

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.48	9.678		1.33	1.00	0.526	pCi/L	114	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.9*		*30 - 110*
Y Carrier	*77.4*		*30 - 110*

Metals

Prep Batch: 625558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total Recoverable	Water	3005A	
240-210459-2	DUP-001-F-A4-20240829-01	Total Recoverable	Water	3005A	
MB 240-625558/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-625558/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 625565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total/NA	Water	7470A	
240-210459-2	DUP-001-F-A4-20240829-01	Total/NA	Water	7470A	
MB 240-625565/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-625565/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 625775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total/NA	Water	7470A	625565
240-210459-2	DUP-001-F-A4-20240829-01	Total/NA	Water	7470A	625565
MB 240-625565/1-A	Method Blank	Total/NA	Water	7470A	625565
LCS 240-625565/2-A	Lab Control Sample	Total/NA	Water	7470A	625565

Analysis Batch: 625910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total Recoverable	Water	6020B	625558
240-210459-1	9631-F-A4-20240829-01	Total Recoverable	Water	6020B	625558
240-210459-2	DUP-001-F-A4-20240829-01	Total Recoverable	Water	6020B	625558
240-210459-2	DUP-001-F-A4-20240829-01	Total Recoverable	Water	6020B	625558
MB 240-625558/1-A	Method Blank	Total Recoverable	Water	6020B	625558
LCS 240-625558/2-A	Lab Control Sample	Total Recoverable	Water	6020B	625558

Analysis Batch: 626042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total Recoverable	Water	6020B	625558
240-210459-2	DUP-001-F-A4-20240829-01	Total Recoverable	Water	6020B	625558

General Chemistry

Analysis Batch: 626212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total/NA	Water	2320B-1997	
240-210459-2	DUP-001-F-A4-20240829-01	Total/NA	Water	2320B-1997	
MB 240-626212/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-626212/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-626212/82	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 628097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total/NA	Water	300.0-1993 R2.1	
240-210459-2	DUP-001-F-A4-20240829-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-628097/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-628097/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Rad

Prep Batch: 678270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total/NA	Water	PrecSep-21	
240-210459-2	DUP-001-F-A4-20240829-01	Total/NA	Water	PrecSep-21	
MB 160-678270/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-678270/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 678271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210459-1	9631-F-A4-20240829-01	Total/NA	Water	PrecSep_0	
240-210459-2	DUP-001-F-A4-20240829-01	Total/NA	Water	PrecSep_0	
MB 160-678271/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-678271/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 9631-F-A4-20240829-01
Lab Sample ID: 240-210459-1

Date Collected: 08/29/24 10:30
Matrix: Water
Date Received: 08/31/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625558	XWS6	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		1	625910	AJC	EET CLE	09/04/24 14:53
Total Recoverable	Prep	3005A			625558	XWS6	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		10	625910	AJC	EET CLE	09/04/24 18:42
Total Recoverable	Prep	3005A			625558	XWS6	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		50	626042	AJC	EET CLE	09/05/24 19:46
Total/NA	Prep	7470A			625565	XWS6	EET CLE	09/03/24 14:00
Total/NA	Analysis	7470A		1	625775	TQ6W	EET CLE	09/04/24 10:49
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 02:54
Total/NA	Analysis	300.0-1993 R2.1		100	628097	JMR	EET CLE	09/26/24 11:24
Total/NA	Prep	PrecSep-21			678270	MLT	EET SL	09/05/24 08:38
Total/NA	Analysis	9315		1	681489	SWS	EET SL	09/29/24 10:17
Total/NA	Prep	PrecSep_0			678271	MLT	EET SL	09/05/24 08:41
Total/NA	Analysis	9320		1	681031	FLC	EET SL	09/26/24 13:38
Total/NA	Analysis	Ra226_Ra228		1	681362	SCB	EET SL	09/30/24 12:44

Client Sample ID: DUP-001-F-A4-20240829-01
Lab Sample ID: 240-210459-2

Date Collected: 08/29/24 00:00
Matrix: Water
Date Received: 08/31/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625558	XWS6	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		1	625910	AJC	EET CLE	09/04/24 14:55
Total Recoverable	Prep	3005A			625558	XWS6	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		10	625910	AJC	EET CLE	09/04/24 18:49
Total Recoverable	Prep	3005A			625558	XWS6	EET CLE	09/03/24 14:00
Total Recoverable	Analysis	6020B		50	626042	AJC	EET CLE	09/05/24 19:49
Total/NA	Prep	7470A			625565	XWS6	EET CLE	09/03/24 14:00
Total/NA	Analysis	7470A		1	625775	TQ6W	EET CLE	09/04/24 10:51
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 02:48
Total/NA	Analysis	300.0-1993 R2.1		100	628097	JMR	EET CLE	09/26/24 11:46
Total/NA	Prep	PrecSep-21			678270	MLT	EET SL	09/05/24 08:38
Total/NA	Analysis	9315		1	681489	SWS	EET SL	09/29/24 10:17
Total/NA	Prep	PrecSep_0			678271	MLT	EET SL	09/05/24 08:41
Total/NA	Analysis	9320		1	681031	FLC	EET SL	09/26/24 13:38
Total/NA	Analysis	Ra226_Ra228		1	681362	SCB	EET SL	09/30/24 12:44

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24 *
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210459-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

2.9 | 3.1

Chain of Custody Record

Columbus

eurofins | Environment Testing America

Client Information	Sampler: Robby Costo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 209	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:	Analysis Requested		
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
9631-F-A4-20240829-01	8-29-24	1030	G	Water	N		1	1	1	2		
DUP-001-F-A4-20240829-01	8-29-24	—	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-210459 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Robby Costo	8-30-24/0930	KEMRON	Ashley Deal	8-30-24 1255	ETA
Relinquished by: Ashley Deal	8-30-24 1700	ETA	JESSICA RIGDON	8-31-24 0800	EETNC
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # : 210459 8.31.24
Barberton Facility

Client Lightstone Gavin Site Name

Cooler Received on 8.31.24 Opened on 8.31.24

Cooler unpacked by: JESSICA RIGDON

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag (None) Other

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF +0.2 °C) Observed Cooler Temp 2.9 °C Corrected Cooler Temp 3.1 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(Y) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

8/31/2024

Login Container Summary Report

240-210459

10/1/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A4-20240829-01	240-210459-A-1	Plastic 250ml - unpreserved				
9631-F-A4-20240829-01	240-210459-B-1	Plastic 250ml - unpreserved				
9631-F-A4-20240829-01	240-210459-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20240829-01	240-210459-D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20240829-01	240-210459-E-1	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20240829-01	240-210459-A-2	Plastic 250ml - unpreserved				
DUP-001-F-A4-20240829-01	240-210459-B-2	Plastic 250ml - unpreserved				
DUP-001-F-A4-20240829-01	240-210459-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A4-20240829-01	240-210459-D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20240829-01	240-210459-E-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190071.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-210459-1
Address: 13715 Rider Trail North,	Due Date Requested: 10/3/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample	Perform MS/MSD	9315_Ra226PrecSep_21 Radium-226 (GFPC)	9320_Ra228PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
9631-F-A4-20240829-01 (240-210459-1)	8/29/24	10:30 Eastern	G	Water			X	X	X	2	
DUP-001-F-A4-20240829-01 (240-210459-2)	8/29/24	Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: MALISSA LOAR	Date/Time: 9324	Company	Received by: Sina Wayne	Date/Time: 9/18/24 0920	Company EETSTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-210459-1

Login Number: 210459
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/04/24 11:45 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/4/2024 4:33:52 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-210548-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-210548-1 — Eurofins Cleveland

Job Narrative
240-210548-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/4/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2°C, 1.3°C and 8.5°C.

Metals
Method 7470A: The hot block take out temperature was 99.5 degrees C. The analysis of the QC in 240-625952 shows acceptable recoveries and therefore validates the results of the associated samples. 2022-12-F-A4-20240830-01 (240-210548-1), 2022-13-F-A4-20240830-01 (240-210548-2) and 2022-14-F-A4-20240830-01 (240-210548-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-14-F-A4-20240830-01 (240-210548-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium 228 Batch 678480

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences

2022-14-F-A4-20240830-01 (240-210548-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210548-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-210548-1	2022-12-F-A4-20240830-01	Water	08/30/24 12:00	09/04/24 08:00
240-210548-2	2022-13-F-A4-20240830-01	Water	08/30/24 14:10	09/04/24 08:00
240-210548-3	2022-14-F-A4-20240830-01	Water	08/30/24 15:27	09/04/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-12-F-A4-20240830-01 — Lab Sample ID: 240-210548-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	15		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.21	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	85000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.32	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	19		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.099	F2	0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-13-F-A4-20240830-01 — Lab Sample ID: 240-210548-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	640		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.13	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	36000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.28	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	36		16	6.9	ug/L	2		6020B	Total Recoverable
Magnesium	9500		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	52		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1700000		2000	1800	ug/L	2		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.2		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-14-F-A4-20240830-01 — Lab Sample ID: 240-210548-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.1	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2700		5.0	0.77	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 2022-14-F-A4-20240830-01 (Continued) **Lab Sample ID: 240-210548-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	0.33	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.21	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	290000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	26		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.5		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	5.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	110		80	34	ug/L	10		6020B	Total Recoverable
Magnesium	80000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	20		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5100000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.36	J	0.50	0.24	mg/L	10		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-12-F-A4-20240830-01
Lab Sample ID: 240-210548-1
Date Collected: 08/30/24 12:00
Matrix: Water
Date Received: 09/04/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/05/24 14:00	09/06/24 12:32	1
Arsenic	ND		5.0	0.75	ug/L		09/05/24 14:00	09/06/24 12:32	1
Barium	**15**		5.0	0.77	ug/L		09/05/24 14:00	09/06/24 12:32	1
Beryllium	ND		1.0	0.27	ug/L		09/05/24 14:00	09/06/24 12:32	1
Cadmium	**0.21**	**J**	1.0	0.077	ug/L		09/05/24 14:00	09/06/24 12:32	1
Calcium	**85000**		1000	250	ug/L		09/05/24 14:00	09/06/24 12:32	1
Chromium	ND		5.0	1.2	ug/L		09/05/24 14:00	09/06/24 12:32	1
Cobalt	**0.32**	**J**	1.0	0.086	ug/L		09/05/24 14:00	09/06/24 12:32	1
Lead	ND		1.0	0.45	ug/L		09/05/24 14:00	09/06/24 12:32	1
Lithium	**19**		8.0	3.4	ug/L		09/05/24 14:00	09/06/24 12:32	1
Magnesium	**25000**		1000	61	ug/L		09/05/24 14:00	09/06/24 12:32	1
Molybdenum	ND		5.0	1.1	ug/L		09/05/24 14:00	09/06/24 12:32	1
Potassium	**3100**		1000	220	ug/L		09/05/24 14:00	09/06/24 12:32	1
Selenium	ND		5.0	0.89	ug/L		09/05/24 14:00	09/06/24 12:32	1
Sodium	**110000**		1000	880	ug/L		09/05/24 14:00	09/06/24 12:32	1
Thallium	ND		1.0	0.51	ug/L		09/05/24 14:00	09/06/24 12:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/05/24 14:00	09/06/24 13:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**280**		5.0	2.6	mg/L			09/06/24 00:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**280**		5.0	2.6	mg/L			09/06/24 00:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 00:58	1
Fluoride (EPA 300.0-1993 R2.1)	**0.099**	**F2**	0.050	0.024	mg/L			09/12/24 12:29	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0915	U	0.105	0.106	1.00	0.171	pCi/L	09/06/24 08:21	09/30/24 07:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*30 - 110*	*09/06/24 08:21*	*09/30/24 07:12*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0317	U	0.336	0.336	1.00	0.624	pCi/L	09/06/24 08:28	09/26/24 13:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*30 - 110*	*09/06/24 08:28*	*09/26/24 13:50*	*1*
Y Carrier	*73.6*		*30 - 110*	*09/06/24 08:28*	*09/26/24 13:50*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210548-1

Client Sample ID: 2022-12-F-A4-20240830-01
Date Collected: 08/30/24 12:00
Date Received: 09/04/24 08:00

Lab Sample ID: 240-210548-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.123	U	0.352	0.352	5.00	0.624	pCi/L		09/30/24 15:44	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210548-1

Client Sample ID: 2022-13-F-A4-20240830-01

Date Collected: 08/30/24 14:10
Date Received: 09/04/24 08:00

Lab Sample ID: 240-210548-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/05/24 14:00	09/06/24 13:13	1
Arsenic	**2.0**	**J**	5.0	0.75	ug/L		09/05/24 14:00	09/06/24 13:13	1
Barium	**640**		5.0	0.77	ug/L		09/05/24 14:00	09/06/24 13:13	1
Beryllium	ND		1.0	0.27	ug/L		09/05/24 14:00	09/06/24 13:13	1
Cadmium	**0.13**	**J**	1.0	0.077	ug/L		09/05/24 14:00	09/06/24 13:13	1
Calcium	**36000**		1000	250	ug/L		09/05/24 14:00	09/06/24 13:13	1
Chromium	ND		5.0	1.2	ug/L		09/05/24 14:00	09/06/24 13:13	1
Cobalt	**0.28**	**J**	1.0	0.086	ug/L		09/05/24 14:00	09/06/24 13:13	1
Lead	ND		1.0	0.45	ug/L		09/05/24 14:00	09/06/24 13:13	1
Lithium	**36**		16	6.9	ug/L		09/05/24 14:00	09/09/24 14:47	2
Magnesium	**9500**		1000	61	ug/L		09/05/24 14:00	09/06/24 13:13	1
Molybdenum	**52**		5.0	1.1	ug/L		09/05/24 14:00	09/06/24 13:13	1
Potassium	**3800**		1000	220	ug/L		09/05/24 14:00	09/06/24 13:13	1
Selenium	ND		5.0	0.89	ug/L		09/05/24 14:00	09/06/24 13:13	1
Sodium	**1700000**		2000	1800	ug/L		09/05/24 14:00	09/09/24 14:47	2
Thallium	ND		1.0	0.51	ug/L		09/05/24 14:00	09/06/24 13:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/05/24 14:00	09/06/24 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**170**		5.0	2.6	mg/L			09/10/24 13:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**170**		5.0	2.6	mg/L			09/10/24 13:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/10/24 13:38	1
Fluoride (EPA 300.0-1993 R2.1)	**1.2**		0.25	0.12	mg/L			09/12/24 22:52	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.592**		0.168	0.176	1.00	0.135	pCi/L	09/06/24 08:21	09/30/24 07:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*30 - 110*	*09/06/24 08:21*	*09/30/24 07:12*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.31**		0.539	0.552	1.00	0.709	pCi/L	09/06/24 08:28	09/26/24 14:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.6*		*30 - 110*	*09/06/24 08:28*	*09/26/24 14:55*	*1*
Y Carrier	*72.5*		*30 - 110*	*09/06/24 08:28*	*09/26/24 14:55*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210548-1

Client Sample ID: 2022-13-F-A4-20240830-01
Date Collected: 08/30/24 14:10
Date Received: 09/04/24 08:00

Lab Sample ID: 240-210548-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.90		0.565	0.579	5.00	0.709	pCi/L		09/30/24 15:44	1

Client Sample ID: 2022-14-F-A4-20240830-01
Date Collected: 08/30/24 15:27
Date Received: 09/04/24 08:00

Lab Sample ID: 240-210548-3
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.57	ug/L		09/05/24 14:00	09/06/24 13:16	1
Arsenic	2.7	J	5.0	0.75	ug/L		09/05/24 14:00	09/06/24 13:16	1
Barium	2700		5.0	0.77	ug/L		09/05/24 14:00	09/06/24 13:16	1
Beryllium	0.33	J	1.0	0.27	ug/L		09/05/24 14:00	09/06/24 13:16	1
Cadmium	0.21	J	1.0	0.077	ug/L		09/05/24 14:00	09/06/24 13:16	1
Calcium	290000		1000	250	ug/L		09/05/24 14:00	09/06/24 13:16	1
Chromium	26		5.0	1.2	ug/L		09/05/24 14:00	09/06/24 13:16	1
Cobalt	4.5		1.0	0.086	ug/L		09/05/24 14:00	09/06/24 13:16	1
Lead	5.2		1.0	0.45	ug/L		09/05/24 14:00	09/06/24 13:16	1
Lithium	110		80	34	ug/L		09/05/24 14:00	09/09/24 14:49	10
Magnesium	80000		1000	61	ug/L		09/05/24 14:00	09/06/24 13:16	1
Molybdenum	20		5.0	1.1	ug/L		09/05/24 14:00	09/06/24 13:16	1
Potassium	9900		1000	220	ug/L		09/05/24 14:00	09/06/24 13:16	1
Selenium	ND		5.0	0.89	ug/L		09/05/24 14:00	09/06/24 13:16	1
Sodium	5100000		10000	8800	ug/L		09/05/24 14:00	09/09/24 14:49	10
Thallium	ND		1.0	0.51	ug/L		09/05/24 14:00	09/06/24 13:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/05/24 14:00	09/06/24 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	180		5.0	2.6	mg/L			09/10/24 13:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	180		5.0	2.6	mg/L			09/10/24 13:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/10/24 13:43	1
Fluoride (EPA 300.0-1993 R2.1)	0.36	J	0.50	0.24	mg/L			09/12/24 23:10	10

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.31		0.510	0.591	1.00	0.236	pCi/L	09/06/24 08:21	09/30/24 07:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*09/06/24 08:21*	*09/30/24 07:12*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.02	G	0.996	1.01	1.00	1.41	pCi/L	09/06/24 08:28	09/26/24 14:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*09/06/24 08:28*	*09/26/24 14:55*	*1*
Y Carrier	*73.6*		*30 - 110*	*09/06/24 08:28*	*09/26/24 14:55*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-14-F-A4-20240830-01
Lab Sample ID: 240-210548-3
Date Collected: 08/30/24 15:27
Matrix: Water
Date Received: 09/04/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.33		1.12	1.17	5.00	1.41	pCi/L		09/30/24 15:44	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210548-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-210548-1	2022-12-F-A4-20240830-01	87.7
240-210548-1 MS	2022-12-F-A4-20240830-01	85.0
240-210548-1 MSD	2022-12-F-A4-20240830-01	90.4
240-210548-2	2022-13-F-A4-20240830-01	94.6
240-210548-3	2022-14-F-A4-20240830-01	102
LCS 160-678479/2-A	Lab Control Sample	90.4
MB 160-678479/1-A	Method Blank	97.5

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-210548-1	2022-12-F-A4-20240830-01	87.7	73.6
240-210548-1 MS	2022-12-F-A4-20240830-01	85.0	69.2
240-210548-1 MSD	2022-12-F-A4-20240830-01	90.4	71.0
240-210548-2	2022-13-F-A4-20240830-01	94.6	72.5
240-210548-3	2022-14-F-A4-20240830-01	102	73.6
LCS 160-678480/2-A	Lab Control Sample	90.4	78.1
MB 160-678480/1-A	Method Blank	97.5	75.5

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-625951/1-A
Matrix: Water
Analysis Batch: 626234

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 625951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/05/24 14:00	09/06/24 12:27	1
Arsenic	ND		5.0	0.75	ug/L		09/05/24 14:00	09/06/24 12:27	1
Barium	ND		5.0	0.77	ug/L		09/05/24 14:00	09/06/24 12:27	1
Beryllium	ND		1.0	0.27	ug/L		09/05/24 14:00	09/06/24 12:27	1
Cadmium	ND		1.0	0.077	ug/L		09/05/24 14:00	09/06/24 12:27	1
Calcium	ND		1000	250	ug/L		09/05/24 14:00	09/06/24 12:27	1
Chromium	ND		5.0	1.2	ug/L		09/05/24 14:00	09/06/24 12:27	1
Cobalt	ND		1.0	0.086	ug/L		09/05/24 14:00	09/06/24 12:27	1
Lead	ND		1.0	0.45	ug/L		09/05/24 14:00	09/06/24 12:27	1
Lithium	ND		8.0	3.4	ug/L		09/05/24 14:00	09/06/24 12:27	1
Magnesium	ND		1000	61	ug/L		09/05/24 14:00	09/06/24 12:27	1
Molybdenum	ND		5.0	1.1	ug/L		09/05/24 14:00	09/06/24 12:27	1
Potassium	ND		1000	220	ug/L		09/05/24 14:00	09/06/24 12:27	1
Selenium	ND		5.0	0.89	ug/L		09/05/24 14:00	09/06/24 12:27	1
Sodium	ND		1000	880	ug/L		09/05/24 14:00	09/06/24 12:27	1
Thallium	ND		1.0	0.51	ug/L		09/05/24 14:00	09/06/24 12:27	1

Lab Sample ID: LCS 240-625951/2-A
Matrix: Water
Analysis Batch: 626234

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 625951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	957		ug/L		96	80 - 120
Barium	1000	958		ug/L		96	80 - 120
Beryllium	500	494		ug/L		99	80 - 120
Cadmium	500	496		ug/L		99	80 - 120
Calcium	25000	24700		ug/L		99	80 - 120
Chromium	500	499		ug/L		100	80 - 120
Cobalt	500	506		ug/L		101	80 - 120
Lead	500	534		ug/L		107	80 - 120
Lithium	500	448		ug/L		90	80 - 120
Magnesium	25000	25100		ug/L		100	80 - 120
Molybdenum	500	482		ug/L		96	80 - 120
Potassium	25000	24700		ug/L		99	80 - 120
Selenium	1000	954		ug/L		95	80 - 120
Sodium	25000	25000		ug/L		100	80 - 120
Thallium	1000	1130		ug/L		113	80 - 120

Lab Sample ID: 240-210548-1 MS
Matrix: Water
Analysis Batch: 626234

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	104		ug/L		104	80 - 120
Arsenic	ND		1000	998		ug/L		100	80 - 120
Barium	15		1000	997		ug/L		98	80 - 120
Beryllium	ND		500	496		ug/L		99	80 - 120
Cadmium	0.21	J	500	495		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-210548-1 MS
Matrix: Water
Analysis Batch: 626234

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	85000		25000	109000		ug/L		98	80 - 120
Chromium	ND		500	501		ug/L		100	80 - 120
Cobalt	0.32	J	500	519		ug/L		104	80 - 120
Lead	ND		500	537		ug/L		107	80 - 120
Lithium	19		500	462		ug/L		89	80 - 120
Magnesium	25000		25000	49100		ug/L		97	80 - 120
Molybdenum	ND		500	504		ug/L		101	80 - 120
Potassium	3100		25000	27900		ug/L		99	80 - 120
Selenium	ND		1000	972		ug/L		97	80 - 120
Sodium	110000		25000	132000	4	ug/L		97	80 - 120
Thallium	ND		1000	1150		ug/L		115	80 - 120

Lab Sample ID: 240-210548-1 MSD
Matrix: Water
Analysis Batch: 626234

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	105		ug/L		105	80 - 120	0	20
Arsenic	ND		1000	988		ug/L		99	80 - 120	1	20
Barium	15		1000	994		ug/L		98	80 - 120	0	20
Beryllium	ND		500	500		ug/L		100	80 - 120	1	20
Cadmium	0.21	J	500	497		ug/L		99	80 - 120	1	20
Calcium	85000		25000	110000		ug/L		100	80 - 120	1	20
Chromium	ND		500	501		ug/L		100	80 - 120	0	20
Cobalt	0.32	J	500	513		ug/L		103	80 - 120	1	20
Lead	ND		500	535		ug/L		107	80 - 120	0	20
Lithium	19		500	472		ug/L		91	80 - 120	2	20
Magnesium	25000		25000	49100		ug/L		98	80 - 120	0	20
Molybdenum	ND		500	506		ug/L		101	80 - 120	0	20
Potassium	3100		25000	27700		ug/L		99	80 - 120	1	20
Selenium	ND		1000	952		ug/L		95	80 - 120	2	20
Sodium	110000		25000	133000	4	ug/L		102	80 - 120	1	20
Thallium	ND		1000	1160		ug/L		116	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-625952/1-A
Matrix: Water
Analysis Batch: 626127

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 625952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/05/24 14:00	09/06/24 13:18	1

Lab Sample ID: LCS 240-625952/2-A
Matrix: Water
Analysis Batch: 626127

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 625952

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.03		ug/L		101	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-210548-1 MS
Matrix: Water
Analysis Batch: 626127

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA
Prep Batch: 625952

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.06		ug/L		106	80 - 120

Lab Sample ID: 240-210548-1 MSD
Matrix: Water
Analysis Batch: 626127

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA
Prep Batch: 625952

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.06		ug/L		106	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-626212/30
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/05/24 21:33	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 21:33	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 21:33	1

Lab Sample ID: MB 240-626212/56
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1

Lab Sample ID: LCS 240-626212/55
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	271		mg/L		97	86 - 123

Lab Sample ID: 240-210548-1 DU
Matrix: Water
Analysis Batch: 626212

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	280		279		mg/L		0.6	20
Bicarbonate Alkalinity as CaCO3	280		279		mg/L		0.6	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-626532/4
Matrix: Water
Analysis Batch: 626532

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/10/24 12:41	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/10/24 12:41	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/10/24 12:41	1

Lab Sample ID: LCS 240-626532/3
Matrix: Water
Analysis Batch: 626532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	271		mg/L		97	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-626350/24
Matrix: Water
Analysis Batch: 626350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			09/12/24 16:24	1

Lab Sample ID: MB 240-626350/3
Matrix: Water
Analysis Batch: 626350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			09/12/24 10:05	1

Lab Sample ID: LCS 240-626350/25
Matrix: Water
Analysis Batch: 626350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.42		mg/L		97	90 - 110

Lab Sample ID: LCS 240-626350/4
Matrix: Water
Analysis Batch: 626350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.41		mg/L		97	90 - 110

Lab Sample ID: 240-210548-1 MS
Matrix: Water
Analysis Batch: 626350

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.099	F2	2.50	2.21		mg/L		85	80 - 120

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-210548-1 MSD
Matrix: Water
Analysis Batch: 626350

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.099	F2	2.50	2.83	F2	mg/L		109	80 - 120	25	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-678479/1-A
Matrix: Water
Analysis Batch: 681511

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678479

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02325	U	0.0546	0.0546	1.00	0.132	pCi/L	09/06/24 08:21	09/30/24 06:53	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*09/06/24 08:21*	*09/30/24 06:53*	*1*

Lab Sample ID: LCS 160-678479/2-A
Matrix: Water
Analysis Batch: 681511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678479

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.880		1.10	1.00	0.201	pCi/L	103	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.4*		*30 - 110*

Lab Sample ID: 240-210548-1 MS
Matrix: Water
Analysis Batch: 681571

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA
Prep Batch: 678479

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.0915	U	9.55	9.640		1.09	1.00	0.174	pCi/L	100	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*85.0*		*30 - 110*

Lab Sample ID: 240-210548-1 MSD
Matrix: Water
Analysis Batch: 681571

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA
Prep Batch: 678479

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.0915	U	9.57	9.345		1.05	1.00	0.155	pCi/L	97	60 - 140	0.14	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*90.4*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-678480/1-A
Matrix: Water
Analysis Batch: 681021

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678480

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1492	U	0.314	0.314	1.00	0.547	pCi/L	09/06/24 08:28	09/26/24 13:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*09/06/24 08:28*	*09/26/24 13:48*	*1*
Y Carrier	*75.5*		*30 - 110*	*09/06/24 08:28*	*09/26/24 13:48*	*1*

Lab Sample ID: LCS 160-678480/2-A
Matrix: Water
Analysis Batch: 681021

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678480

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.48	9.978		1.37	1.00	0.600	pCi/L	118	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.4*		*30 - 110*
Y Carrier	*78.1*		*30 - 110*

Lab Sample ID: 240-210548-1 MS
Matrix: Water
Analysis Batch: 681021

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA
Prep Batch: 678480

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	0.0317	U	8.46	9.485		1.47	1.00	0.796	pCi/L	112	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*85.0*		*30 - 110*
Y Carrier	*69.2*		*30 - 110*

Lab Sample ID: 240-210548-1 MSD
Matrix: Water
Analysis Batch: 681021

Client Sample ID: 2022-12-F-A4-20240830-01
Prep Type: Total/NA
Prep Batch: 678480

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.0317	U	8.47	9.333		1.41	1.00	0.685	pCi/L	110	60 - 140	0.05	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*90.4*		*30 - 110*
Y Carrier	*71.0*		*30 - 110*

Metals

Prep Batch: 625951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total Recoverable	Water	3005A	
240-210548-2	2022-13-F-A4-20240830-01	Total Recoverable	Water	3005A	
240-210548-3	2022-14-F-A4-20240830-01	Total Recoverable	Water	3005A	
MB 240-625951/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-625951/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-210548-1 MS	2022-12-F-A4-20240830-01	Total Recoverable	Water	3005A	
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total Recoverable	Water	3005A	

Prep Batch: 625952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total/NA	Water	7470A	
240-210548-2	2022-13-F-A4-20240830-01	Total/NA	Water	7470A	
240-210548-3	2022-14-F-A4-20240830-01	Total/NA	Water	7470A	
MB 240-625952/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-625952/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-210548-1 MS	2022-12-F-A4-20240830-01	Total/NA	Water	7470A	
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total/NA	Water	7470A	

Analysis Batch: 626127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total/NA	Water	7470A	625952
240-210548-2	2022-13-F-A4-20240830-01	Total/NA	Water	7470A	625952
240-210548-3	2022-14-F-A4-20240830-01	Total/NA	Water	7470A	625952
MB 240-625952/1-A	Method Blank	Total/NA	Water	7470A	625952
LCS 240-625952/2-A	Lab Control Sample	Total/NA	Water	7470A	625952
240-210548-1 MS	2022-12-F-A4-20240830-01	Total/NA	Water	7470A	625952
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total/NA	Water	7470A	625952

Analysis Batch: 626234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total Recoverable	Water	6020B	625951
240-210548-2	2022-13-F-A4-20240830-01	Total Recoverable	Water	6020B	625951
240-210548-3	2022-14-F-A4-20240830-01	Total Recoverable	Water	6020B	625951
MB 240-625951/1-A	Method Blank	Total Recoverable	Water	6020B	625951
LCS 240-625951/2-A	Lab Control Sample	Total Recoverable	Water	6020B	625951
240-210548-1 MS	2022-12-F-A4-20240830-01	Total Recoverable	Water	6020B	625951
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total Recoverable	Water	6020B	625951

Analysis Batch: 626309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-2	2022-13-F-A4-20240830-01	Total Recoverable	Water	6020B	625951
240-210548-3	2022-14-F-A4-20240830-01	Total Recoverable	Water	6020B	625951

General Chemistry

Analysis Batch: 626212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total/NA	Water	2320B-1997	
MB 240-626212/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-626212/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-626212/55	Lab Control Sample	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 626212 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1 DU	2022-12-F-A4-20240830-01	Total/NA	Water	2320B-1997	

Analysis Batch: 626350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total/NA	Water	300.0-1993 R2.1	
240-210548-2	2022-13-F-A4-20240830-01	Total/NA	Water	300.0-1993 R2.1	
240-210548-3	2022-14-F-A4-20240830-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-626350/24	Method Blank	Total/NA	Water	300.0-1993 R2.1	
MB 240-626350/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-626350/25	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCS 240-626350/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-210548-1 MS	2022-12-F-A4-20240830-01	Total/NA	Water	300.0-1993 R2.1	
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 626532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-2	2022-13-F-A4-20240830-01	Total/NA	Water	2320B-1997	
240-210548-3	2022-14-F-A4-20240830-01	Total/NA	Water	2320B-1997	
MB 240-626532/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-626532/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Rad

Prep Batch: 678479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total/NA	Water	PrecSep-21	
240-210548-2	2022-13-F-A4-20240830-01	Total/NA	Water	PrecSep-21	
240-210548-3	2022-14-F-A4-20240830-01	Total/NA	Water	PrecSep-21	
MB 160-678479/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-678479/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-210548-1 MS	2022-12-F-A4-20240830-01	Total/NA	Water	PrecSep-21	
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total/NA	Water	PrecSep-21	

Prep Batch: 678480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210548-1	2022-12-F-A4-20240830-01	Total/NA	Water	PrecSep_0	
240-210548-2	2022-13-F-A4-20240830-01	Total/NA	Water	PrecSep_0	
240-210548-3	2022-14-F-A4-20240830-01	Total/NA	Water	PrecSep_0	
MB 160-678480/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-678480/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-210548-1 MS	2022-12-F-A4-20240830-01	Total/NA	Water	PrecSep_0	
240-210548-1 MSD	2022-12-F-A4-20240830-01	Total/NA	Water	PrecSep_0	

Client Sample ID: 2022-12-F-A4-20240830-01
Lab Sample ID: 240-210548-1

Date Collected: 08/30/24 12:00
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625951	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		1	626234	AJC	EET CLE	09/06/24 12:32
Total/NA	Prep	7470A			625952	XWS6	EET CLE	09/05/24 14:00
Total/NA	Analysis	7470A		1	626127	GK	EET CLE	09/06/24 13:21
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 00:58
Total/NA	Analysis	300.0-1993 R2.1		1	626350	JMR	EET CLE	09/12/24 12:29
Total/NA	Prep	PrecSep-21			678479	BCE	EET SL	09/06/24 08:21
Total/NA	Analysis	9315		1	681571	SCB	EET SL	09/30/24 07:12
Total/NA	Prep	PrecSep_0			678480	BCE	EET SL	09/06/24 08:28
Total/NA	Analysis	9320		1	681021	FLC	EET SL	09/26/24 13:50
Total/NA	Analysis	Ra226_Ra228		1	681584	FLC	EET SL	09/30/24 15:44

Client Sample ID: 2022-13-F-A4-20240830-01
Lab Sample ID: 240-210548-2

Date Collected: 08/30/24 14:10
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625951	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		1	626234	AJC	EET CLE	09/06/24 13:13
Total Recoverable	Prep	3005A			625951	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		2	626309	AJC	EET CLE	09/09/24 14:47
Total/NA	Prep	7470A			625952	XWS6	EET CLE	09/05/24 14:00
Total/NA	Analysis	7470A		1	626127	GK	EET CLE	09/06/24 13:35
Total/NA	Analysis	2320B-1997		1	626532	JMR	EET CLE	09/10/24 13:38
Total/NA	Analysis	300.0-1993 R2.1		5	626350	JMR	EET CLE	09/12/24 22:52
Total/NA	Prep	PrecSep-21			678479	BCE	EET SL	09/06/24 08:21
Total/NA	Analysis	9315		1	681571	SCB	EET SL	09/30/24 07:12
Total/NA	Prep	PrecSep_0			678480	BCE	EET SL	09/06/24 08:28
Total/NA	Analysis	9320		1	681021	FLC	EET SL	09/26/24 14:55
Total/NA	Analysis	Ra226_Ra228		1	681584	FLC	EET SL	09/30/24 15:44

Client Sample ID: 2022-14-F-A4-20240830-01
Lab Sample ID: 240-210548-3

Date Collected: 08/30/24 15:27
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625951	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		1	626234	AJC	EET CLE	09/06/24 13:16
Total Recoverable	Prep	3005A			625951	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		10	626309	AJC	EET CLE	09/09/24 14:49
Total/NA	Prep	7470A			625952	XWS6	EET CLE	09/05/24 14:00
Total/NA	Analysis	7470A		1	626127	GK	EET CLE	09/06/24 13:36
Total/NA	Analysis	2320B-1997		1	626532	JMR	EET CLE	09/10/24 13:43
Total/NA	Analysis	300.0-1993 R2.1		10	626350	JMR	EET CLE	09/12/24 23:10

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-14-F-A4-20240830-01
Lab Sample ID: 240-210548-3
Date Collected: 08/30/24 15:27
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			678479	BCE	EET SL	09/06/24 08:21
Total/NA	Analysis	9315		1	681571	SCB	EET SL	09/30/24 07:12
Total/NA	Prep	PrecSep_0			678480	BCE	EET SL	09/06/24 08:28
Total/NA	Analysis	9320		1	681021	FLC	EET SL	09/26/24 14:55
Total/NA	Analysis	Ra226_Ra228		1	681584	FLC	EET SL	09/30/24 15:44

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	09-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210548-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins Environment Testing America

Columbus

Client Information	Sampler: Bobby Caste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 209	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra226, Ra226Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-12-F-A4-20240830-01	8-30-24	1200	6	Water	N		1	1	1	2		
2022-12-F-A4-20240830-MS-01	8-30-24	1200	6	Water	N		1	1	1	2		
2022-12-F-A4-20240830-MSD-01	8-30-24	1200	6	Water	N		1	1	1	2		
2022-13-F-A4-20240830-01	8-30-24	1410	6	Water	N		1	1	1	2		
2022-14-F-A4-20240830-01	8-30-24	1527	6	Water	N		1	1	1	2		

240-210548 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Bobby Caste	Date/Time: 9-3-24/0920	Company KEMRON	Received by: Ashley Deal	Date/Time: 9.3.24 1:42	Company EFA		
Relinquished by: Ashley Deal	Date/Time: 9.3.24 1200	Company EFA	Received by: JMOROSKO	Date/Time: 09/04/24 0830	Company EETC		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Gavin Site Name

Cooler Received on 09/04/24 Opened on 09/04/24

Cooler unpacked by: JMOROSKO

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving.

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

Received in coolers w/ ice

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen

Login # : _____

10/4/2024

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.9	1.3	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	8.6	8.5	Wet Ice Blue Ice Dry Ice Water (None)
EC Client Box Other	IR GUN #: _____	1.3	1.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

9/4/2024

Login Container Summary Report

240-210548

10/4/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A4-20240830-01	240-210548-A-1	Plastic 250ml - unpreserved				
2022-12-F-A4-20240830-01	240-210548-A-1 MS	Plastic 250ml - unpreserved				
2022-12-F-A4-20240830-01	240-210548-A-1 MSD	Plastic 250ml - unpreserved				
2022-12-F-A4-20240830-01	240-210548-B-1	Plastic 250ml - unpreserved				
2022-12-F-A4-20240830-01	240-210548-B-1 MS	Plastic 250ml - unpreserved				
2022-12-F-A4-20240830-01	240-210548-B-1 MSD	Plastic 250ml - unpreserved				
2022-12-F-A4-20240830-01	240-210548-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-D-1 MS	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-E-1 MS	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20240830-01	240-210548-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4-20240830-01	240-210548-A-2	Plastic 250ml - unpreserved				
2022-13-F-A4-20240830-01	240-210548-B-2	Plastic 250ml - unpreserved				
2022-13-F-A4-20240830-01	240-210548-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A4-20240830-01	240-210548-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4-20240830-01	240-210548-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20240830-01	240-210548-A-3	Plastic 250ml - unpreserved				
2022-14-F-A4-20240830-01	240-210548-B-3	Plastic 250ml - unpreserved				
2022-14-F-A4-20240830-01	240-210548-C-3	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-A4-20240830-01	240-210548-D-3	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20240830-01	240-210548-E-3	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190097.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-210548-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/7/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-12-F-A4-20240830-01 (240-210548-1)	8/30/24	12:00 Eastern	G	Water			X	X	X	2	
2022-12-F-A4-20240830-01 (240-210548-1MS)	8/30/24	12:00 Eastern	G	Water			X	X	X	2	
2022-12-F-A4-20240830-01 (240-210548-1MSD)	8/30/24	12:00 Eastern	G	Water			X	X	X	2	
2022-13-F-A4-20240830-01 (240-210548-2)	8/30/24	14:10 Eastern	G	Water			X	X	X	2	
2022-14-F-A4-20240830-01 (240-210548-3)	8/30/24	15:27 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: MALISSA LOAR	Date/Time: 9.4.24	Company	Received by: Sierra Worthington	Date/Time: SEP 05 2024 0930	Company ETNSR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-210548-1

Login Number: 210548
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/05/24 11:50 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 9/13/2024 2:05:14 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-210549-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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9/13/2024 2:05:14 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-210549-1 — Eurofins Cleveland

Job Narrative
240-210549-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/4/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2°C, 1.3°C and 8.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210549-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210549-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-210549-1	2022-12-F-A3-20240830-01	Water	08/30/24 12:00	09/04/24 08:00
240-210549-2	2022-13-F-A3-20240830-01	Water	08/30/24 14:10	09/04/24 08:00
240-210549-3	2022-14-F-A3-20240830-01	Water	08/30/24 15:27	09/04/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210549-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-12-F-A3-20240830-01 — Lab Sample ID: 240-210549-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	87	J	100	57	ug/L	1		6010D	Total Recoverable
Calcium	83000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	17		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	240		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	560		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-13-F-A3-20240830-01 — Lab Sample ID: 240-210549-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	320		100	57	ug/L	1		6010D	Total Recoverable
Calcium	27000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	7300		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1600000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2500		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	1.4		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	6.9		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	3500		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-14-F-A3-20240830-01 — Lab Sample ID: 240-210549-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Calcium	290000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	84000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	9700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5200000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	150		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	10000		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.39	J	0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	110		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	15000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210549-1

Client Sample ID: 2022-12-F-A3-20240830-01

Lab Sample ID: 240-210549-1

Date Collected: 08/30/24 12:00
Matrix: Water
Date Received: 09/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	87	J	100	57	ug/L		09/05/24 14:00	09/10/24 15:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	83000		1000	250	ug/L		09/05/24 14:00	09/06/24 15:12	1
Magnesium	24000		1000	61	ug/L		09/05/24 14:00	09/06/24 15:12	1
Potassium	3000		1000	220	ug/L		09/05/24 14:00	09/06/24 15:12	1
Sodium	110000		1000	880	ug/L		09/05/24 14:00	09/06/24 15:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			09/06/24 03:07	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			09/06/24 03:07	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 03:07	1
Chloride (EPA 300.0)	17		1.0	0.13	mg/L			09/12/24 23:28	1
Fluoride (EPA 300.0)	0.10		0.050	0.024	mg/L			09/12/24 23:28	1
Sulfate (EPA 300.0)	240		5.0	1.7	mg/L			09/13/24 00:22	5
Total Dissolved Solids (SM 2540C)	560		10	7.8	mg/L			09/05/24 08:50	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210549-1

Client Sample ID: 2022-13-F-A3-20240830-01

Date Collected: 08/30/24 14:10
Date Received: 09/04/24 08:00

Lab Sample ID: 240-210549-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	320		100	57	ug/L		09/05/24 14:00	09/10/24 16:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	27000		1000	250	ug/L		09/05/24 14:00	09/06/24 15:44	1
Magnesium	7300		1000	61	ug/L		09/05/24 14:00	09/06/24 15:44	1
Potassium	3100		1000	220	ug/L		09/05/24 14:00	09/06/24 15:44	1
Sodium	1600000		10000	8800	ug/L		09/05/24 14:00	09/09/24 20:34	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			09/06/24 02:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			09/06/24 02:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 02:34	1
Chloride (EPA 300.0)	2500		20	2.6	mg/L			09/13/24 02:10	20
Fluoride (EPA 300.0)	1.4		0.10	0.048	mg/L			09/13/24 01:16	2
Sulfate (EPA 300.0)	6.9		2.0	0.70	mg/L			09/13/24 01:16	2
Total Dissolved Solids (SM 2540C)	3500		50	39	mg/L			09/05/24 08:52	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210549-1

Client Sample ID: 2022-14-F-A3-20240830-01

Lab Sample ID: 240-210549-3

Date Collected: 08/30/24 15:27

Matrix: Water

Date Received: 09/04/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		09/05/24 14:00	09/10/24 16:20	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	290000		1000	250	ug/L		09/05/24 14:00	09/06/24 15:47	1
Magnesium	84000		1000	61	ug/L		09/05/24 14:00	09/06/24 15:47	1
Potassium	9700		1000	220	ug/L		09/05/24 14:00	09/06/24 15:47	1
Sodium	5200000		10000	8800	ug/L		09/05/24 14:00	09/09/24 20:37	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	150		5.0	2.6	mg/L			09/06/24 02:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	150		5.0	2.6	mg/L			09/06/24 02:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/06/24 02:42	1
Chloride (EPA 300.0)	10000		100	13	mg/L			09/13/24 02:46	100
Fluoride (EPA 300.0)	0.39	J	0.50	0.24	mg/L			09/13/24 02:28	10
Sulfate (EPA 300.0)	110		10	3.5	mg/L			09/13/24 02:28	10
Total Dissolved Solids (SM 2540C)	15000		1000	780	mg/L			09/06/24 13:38	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210549-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-625927/1-A
Matrix: Water
Analysis Batch: 626530

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/05/24 14:00	09/10/24 15:04	1

Lab Sample ID: LCS 240-625927/2-A
Matrix: Water
Analysis Batch: 626530

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1050		ug/L		105	80 - 120

Lab Sample ID: 240-210549-1 MS
Matrix: Water
Analysis Batch: 626530

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	87	J	1000	1190		ug/L		110	75 - 125

Lab Sample ID: 240-210549-1 MSD
Matrix: Water
Analysis Batch: 626530

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	87	J	1000	1190		ug/L		110	75 - 125	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-625927/1-A
Matrix: Water
Analysis Batch: 626234

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		09/05/24 14:00	09/06/24 15:02	1
Magnesium	ND		1000	61	ug/L		09/05/24 14:00	09/06/24 15:02	1
Potassium	ND		1000	220	ug/L		09/05/24 14:00	09/06/24 15:02	1
Sodium	ND		1000	880	ug/L		09/05/24 14:00	09/06/24 15:02	1

Lab Sample ID: LCS 240-625927/3-A
Matrix: Water
Analysis Batch: 626234

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24200		ug/L		97	80 - 120
Magnesium	25000	24100		ug/L		96	80 - 120
Potassium	25000	23700		ug/L		95	80 - 120
Sodium	25000	24100		ug/L		97	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-210549-1 MS
Matrix: Water
Analysis Batch: 626234

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	83000		25000	107000		ug/L		97	80 - 120
Magnesium	24000		25000	48300		ug/L		98	80 - 120
Potassium	3000		25000	27600		ug/L		99	80 - 120
Sodium	110000		25000	135000	4	ug/L		100	80 - 120

Lab Sample ID: 240-210549-1 MSD
Matrix: Water
Analysis Batch: 626234

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total Recoverable
Prep Batch: 625927

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	83000		25000	104000		ug/L		86	80 - 120	3	20
Magnesium	24000		25000	47500		ug/L		94	80 - 120	2	20
Potassium	3000		25000	27300		ug/L		97	80 - 120	1	20
Sodium	110000		25000	133000	4	ug/L		91	80 - 120	2	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-626212/56
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/05/24 23:51	1

Lab Sample ID: MB 240-626212/83
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/06/24 02:05	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/06/24 02:05	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/06/24 02:05	1

Lab Sample ID: LCS 240-626212/82
Matrix: Water
Analysis Batch: 626212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	279		mg/L		100	86 - 123

Lab Sample ID: 240-210549-1 DU
Matrix: Water
Analysis Batch: 626212

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	280		280		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	280		280		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-626350/24
Matrix: Water
Analysis Batch: 626350

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/12/24 16:24	1
Fluoride	ND		0.050	0.024	mg/L			09/12/24 16:24	1
Sulfate	ND		1.0	0.35	mg/L			09/12/24 16:24	1

Lab Sample ID: LCS 240-626350/25
Matrix: Water
Analysis Batch: 626350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.4		mg/L		99	90 - 110
Fluoride	2.50	2.42		mg/L		97	90 - 110
Sulfate	50.0	49.3		mg/L		99	90 - 110

Lab Sample ID: 240-210549-1 MS
Matrix: Water
Analysis Batch: 626350

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	17		50.0	68.0		mg/L		103	80 - 120
Fluoride	0.10		2.50	2.54		mg/L		97	80 - 120

Lab Sample ID: 240-210549-1 MS
Matrix: Water
Analysis Batch: 626350

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	240		250	486		mg/L		97	80 - 120

Lab Sample ID: 240-210549-1 MSD
Matrix: Water
Analysis Batch: 626350

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	17		50.0	67.9		mg/L		103	80 - 120	0	15
Fluoride	0.10		2.50	2.51		mg/L		96	80 - 120	1	15

Lab Sample ID: 240-210549-1 MSD
Matrix: Water
Analysis Batch: 626350

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	240		250	489		mg/L		98	80 - 120	0	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-625874/1
Matrix: Water
Analysis Batch: 625874

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/05/24 08:50	1

Lab Sample ID: LCS 240-625874/2
Matrix: Water
Analysis Batch: 625874

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	626		mg/L		87	80 - 120		

Lab Sample ID: 240-210549-1 DU
Matrix: Water
Analysis Batch: 625874

Client Sample ID: 2022-12-F-A3-20240830-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	560			621		mg/L				10	20

Lab Sample ID: MB 240-626033/1
Matrix: Water
Analysis Batch: 626033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/06/24 08:46	1

Lab Sample ID: LCS 240-626033/2
Matrix: Water
Analysis Batch: 626033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	713		mg/L		99	80 - 120		

Metals

Prep Batch: 625927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-1	2022-12-F-A3-20240830-01	Total Recoverable	Water	3005A	
240-210549-2	2022-13-F-A3-20240830-01	Total Recoverable	Water	3005A	
240-210549-3	2022-14-F-A3-20240830-01	Total Recoverable	Water	3005A	
MB 240-625927/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-625927/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-625927/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-210549-1 MS	2022-12-F-A3-20240830-01	Total Recoverable	Water	3005A	
240-210549-1 MS	2022-12-F-A3-20240830-01	Total Recoverable	Water	3005A	
240-210549-1 MSD	2022-12-F-A3-20240830-01	Total Recoverable	Water	3005A	
240-210549-1 MSD	2022-12-F-A3-20240830-01	Total Recoverable	Water	3005A	

Analysis Batch: 626234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-1	2022-12-F-A3-20240830-01	Total Recoverable	Water	6020B	625927
240-210549-2	2022-13-F-A3-20240830-01	Total Recoverable	Water	6020B	625927
240-210549-3	2022-14-F-A3-20240830-01	Total Recoverable	Water	6020B	625927
MB 240-625927/1-A	Method Blank	Total Recoverable	Water	6020B	625927
LCS 240-625927/3-A	Lab Control Sample	Total Recoverable	Water	6020B	625927
240-210549-1 MS	2022-12-F-A3-20240830-01	Total Recoverable	Water	6020B	625927
240-210549-1 MSD	2022-12-F-A3-20240830-01	Total Recoverable	Water	6020B	625927

Analysis Batch: 626309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-2	2022-13-F-A3-20240830-01	Total Recoverable	Water	6020B	625927
240-210549-3	2022-14-F-A3-20240830-01	Total Recoverable	Water	6020B	625927

Analysis Batch: 626530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-1	2022-12-F-A3-20240830-01	Total Recoverable	Water	6010D	625927
240-210549-2	2022-13-F-A3-20240830-01	Total Recoverable	Water	6010D	625927
240-210549-3	2022-14-F-A3-20240830-01	Total Recoverable	Water	6010D	625927
MB 240-625927/1-A	Method Blank	Total Recoverable	Water	6010D	625927
LCS 240-625927/2-A	Lab Control Sample	Total Recoverable	Water	6010D	625927
240-210549-1 MS	2022-12-F-A3-20240830-01	Total Recoverable	Water	6010D	625927
240-210549-1 MSD	2022-12-F-A3-20240830-01	Total Recoverable	Water	6010D	625927

General Chemistry

Analysis Batch: 625874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-1	2022-12-F-A3-20240830-01	Total/NA	Water	SM 2540C	
240-210549-2	2022-13-F-A3-20240830-01	Total/NA	Water	SM 2540C	
MB 240-625874/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-625874/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-210549-1 DU	2022-12-F-A3-20240830-01	Total/NA	Water	SM 2540C	

Analysis Batch: 626033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-3	2022-14-F-A3-20240830-01	Total/NA	Water	SM 2540C	
MB 240-626033/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-626033/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 626212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-1	2022-12-F-A3-20240830-01	Total/NA	Water	2320B-1997	
240-210549-2	2022-13-F-A3-20240830-01	Total/NA	Water	2320B-1997	
240-210549-3	2022-14-F-A3-20240830-01	Total/NA	Water	2320B-1997	
MB 240-626212/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-626212/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-626212/82	Lab Control Sample	Total/NA	Water	2320B-1997	
240-210549-1 DU	2022-12-F-A3-20240830-01	Total/NA	Water	2320B-1997	

Analysis Batch: 626350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210549-1	2022-12-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-1	2022-12-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-2	2022-13-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-2	2022-13-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-3	2022-14-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-3	2022-14-F-A3-20240830-01	Total/NA	Water	300.0	
MB 240-626350/24	Method Blank	Total/NA	Water	300.0	
LCS 240-626350/25	Lab Control Sample	Total/NA	Water	300.0	
240-210549-1 MS	2022-12-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-1 MS	2022-12-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-1 MSD	2022-12-F-A3-20240830-01	Total/NA	Water	300.0	
240-210549-1 MSD	2022-12-F-A3-20240830-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210549-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-12-F-A3-20240830-01
Lab Sample ID: 240-210549-1

Date Collected: 08/30/24 12:00
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6010D		1	626530	RKT	EET CLE	09/10/24 15:21
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		1	626234	AJC	EET CLE	09/06/24 15:12
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 03:07
Total/NA	Analysis	300.0		1	626350	JMR	EET CLE	09/12/24 23:28
Total/NA	Analysis	300.0		5	626350	JMR	EET CLE	09/13/24 00:22
Total/NA	Analysis	SM 2540C		1	625874	TAV2	EET CLE	09/05/24 08:50

Client Sample ID: 2022-13-F-A3-20240830-01
Lab Sample ID: 240-210549-2

Date Collected: 08/30/24 14:10
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6010D		1	626530	RKT	EET CLE	09/10/24 16:16
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		1	626234	AJC	EET CLE	09/06/24 15:44
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		10	626309	AJC	EET CLE	09/09/24 20:34
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 02:34
Total/NA	Analysis	300.0		2	626350	JMR	EET CLE	09/13/24 01:16
Total/NA	Analysis	300.0		20	626350	JMR	EET CLE	09/13/24 02:10
Total/NA	Analysis	SM 2540C		1	625874	TAV2	EET CLE	09/05/24 08:52

Client Sample ID: 2022-14-F-A3-20240830-01
Lab Sample ID: 240-210549-3

Date Collected: 08/30/24 15:27
Matrix: Water
Date Received: 09/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6010D		1	626530	RKT	EET CLE	09/10/24 16:20
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		1	626234	AJC	EET CLE	09/06/24 15:47
Total Recoverable	Prep	3005A			625927	XWS6	EET CLE	09/05/24 14:00
Total Recoverable	Analysis	6020B		10	626309	AJC	EET CLE	09/09/24 20:37
Total/NA	Analysis	2320B-1997		1	626212	JMR	EET CLE	09/06/24 02:42
Total/NA	Analysis	300.0		10	626350	JMR	EET CLE	09/13/24 02:28
Total/NA	Analysis	300.0		100	626350	JMR	EET CLE	09/13/24 02:46
Total/NA	Analysis	SM 2540C		1	626033	TAV2	EET CLE	09/06/24 13:38

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210549-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 209	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owastetoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-12-F-A3-20240830-01	8-30-24	1200	6	W	N		1	1	1		
2022-12-F-A3-20240830-MS-01	8-30-24	1200	6	W	N		1	1	1		
2022-12-F-A3-20240830-MSD-01	8-30-24	1200	6	W	N		1	1	1		
2022-13-F-A3_20240830-01	8-30-24	1410	6	W	N		1	1	1		
2022-14-F-A3-20240830-01	8-30-24	1527	6	W	N		1	1	1		

240-210549 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Bobby Casto	9-3-24/0920	Eurofins	Ashley Deal	9-3-24 1:42	ITA
Relinquished by: Ashley Deal	9-3-24 1700	ETA	JMOROSKO	09/04/24 0840	ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Lightstone Gavin Site Name

Cooler unpacked by: JMOROSKO

Cooler Received on 09/04/24 Opened on 09/04/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # FC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N) and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

Received in coolers w/ ice

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved: Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

9/13/2024

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.9	1.3	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	8.6	8.5	Wet Ice Blue Ice Dry Ice Water (None)
EC Client Box Other	IR GUN #:	1.3	1.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

9/4/2024

Login Container Summary Report

240-210549

9/13/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A3-20240830-01	240-210549-A-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20240830-01	240-210549-A-1 MS	Plastic 250ml - unpreserved				
2022-12-F-A3-20240830-01	240-210549-A-1 MSD	Plastic 250ml - unpreserved				
2022-12-F-A3-20240830-01	240-210549-B-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20240830-01	240-210549-B-1 MS	Plastic 250ml - unpreserved				
2022-12-F-A3-20240830-01	240-210549-B-1 MSD	Plastic 250ml - unpreserved				
2022-12-F-A3-20240830-01	240-210549-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A3-20240830-01	240-210549-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A3-20240830-01	240-210549-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A3-20240830-01	240-210549-A-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20240830-01	240-210549-B-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20240830-01	240-210549-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-A3-20240830-01	240-210549-A-3	Plastic 250ml - unpreserved				
2022-14-F-A3-20240830-01	240-210549-B-3	Plastic 250ml - unpreserved				
2022-14-F-A3-20240830-01	240-210549-C-3	Plastic 500ml - with Nitric Acid	<2			

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/4/2024 5:14:05 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-210693-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-210693-1 Eurofins Cleveland

Job Narrative
240-210693-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/6/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4°C and 1.6°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium 228 Batch 678827

The detection goal was not met for the following sample due to a reduced sample volume used in prep attributed to the presence of matrix interferences
2022-06-F-A4-20240904-01 (240-210693-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-210693-1	2022-05-F-A4-20240903-01	Water	09/03/24 13:15	09/06/24 08:00
240-210693-2	2022-04-F-A4-20240903-01	Water	09/03/24 14:45	09/06/24 08:00
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Water	09/03/24 15:00	09/06/24 08:00
240-210693-4	EB-001-F-A4-20240903-01	Water	09/03/24 15:15	09/06/24 08:00
240-210693-5	2022-06-F-A4-20240904-01	Water	09/04/24 12:53	09/06/24 08:00
240-210693-6	2022-03-F-A4-20240904-01	Water	09/04/24 11:41	09/06/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-05-F-A4-20240903-01 — Lab Sample ID: 240-210693-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2500		25	3.9	ug/L	5		6020B	Total Recoverable
Calcium	89000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.69	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	78		40	17	ug/L	5		6020B	Total Recoverable
Magnesium	27000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	27		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	6000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2900000		5000	4400	ug/L	5		6020B	Total Recoverable
Total Alkalinity	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.2		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-04-F-A4-20240903-01 — Lab Sample ID: 240-210693-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	92		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.29	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.18	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.35	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	20		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	35000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.3	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	91000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.096		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: FIELD BLANK-001-F-A4-20240903-01 — Lab Sample ID: 240-210693-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.077	J	1.0	0.077	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: EB-001-F-A4-20240903-01 — Lab Sample ID: 240-210693-4

No Detections.

Client Sample ID: 2022-06-F-A4-20240904-01 — Lab Sample ID: 240-210693-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	290		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	59000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.2	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.4		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.89	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	8.6		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	12		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2300		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	240000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.71		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-03-F-A4-20240904-01 — Lab Sample ID: 240-210693-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	640		50	7.7	ug/L	10		6020B	Total Recoverable
Cadmium	0.19	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	350000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.3	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.9		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	1.8		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	600		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	130000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	180		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	5.1		5.0	0.89	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 2022-03-F-A4-20240904-01 (Continued)
Lab Sample ID: 240-210693-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	7900000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.66		0.50	0.24	mg/L	10		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-05-F-A4-20240903-01

Date Collected: 09/03/24 13:15
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 17:49	1
Arsenic	**4.8**	**J**	5.0	0.75	ug/L		09/06/24 14:00	09/09/24 17:49	1
Barium	**2500**		25	3.9	ug/L		09/06/24 14:00	09/10/24 15:48	5
Beryllium	ND		1.0	0.27	ug/L		09/06/24 14:00	09/09/24 17:49	1
Cadmium	ND		1.0	0.077	ug/L		09/06/24 14:00	09/09/24 17:49	1
Calcium	**89000**		1000	250	ug/L		09/06/24 14:00	09/09/24 17:49	1
Chromium	ND		5.0	1.2	ug/L		09/06/24 14:00	09/09/24 17:49	1
Cobalt	**0.69**	**J**	1.0	0.086	ug/L		09/06/24 14:00	09/09/24 17:49	1
Lead	ND		1.0	0.45	ug/L		09/06/24 14:00	09/09/24 17:49	1
Lithium	**78**		40	17	ug/L		09/06/24 14:00	09/10/24 15:48	5
Magnesium	**27000**		1000	61	ug/L		09/06/24 14:00	09/09/24 17:49	1
Molybdenum	**27**		5.0	1.1	ug/L		09/06/24 14:00	09/09/24 17:49	1
Potassium	**6000**		1000	220	ug/L		09/06/24 14:00	09/09/24 17:49	1
Selenium	ND		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 17:49	1
Sodium	**2900000**		5000	4400	ug/L		09/06/24 14:00	09/10/24 15:48	5
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 17:49	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**200**		5.0	2.6	mg/L			09/13/24 20:34	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**200**		5.0	2.6	mg/L			09/13/24 20:34	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:34	1
Fluoride (EPA 300.0-1993 R2.1)	**1.2**		0.25	0.12	mg/L			09/30/24 19:12	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.23**		0.218	0.245	1.00	0.138	pCi/L	09/10/24 08:26	10/02/24 07:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:58*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.58**		0.467	0.489	1.00	0.526	pCi/L	09/10/24 08:32	09/27/24 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*
Y Carrier	*78.5*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-05-F-A4-20240903-01
Date Collected: 09/03/24 13:15
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.81		0.515	0.547	5.00	0.526	pCi/L		10/02/24 16:25	1

Client Sample ID: 2022-04-F-A4-20240903-01
Date Collected: 09/03/24 14:45
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-2
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 18:06	1
Arsenic	**1.1**	**J**	5.0	0.75	ug/L		09/06/24 14:00	09/09/24 18:06	1
Barium	**92**		5.0	0.77	ug/L		09/06/24 14:00	09/10/24 16:00	1
Beryllium	**0.29**	**J**	1.0	0.27	ug/L		09/06/24 14:00	09/09/24 18:06	1
Cadmium	**0.18**	**J**	1.0	0.077	ug/L		09/06/24 14:00	09/09/24 18:06	1
Calcium	**120000**		1000	250	ug/L		09/06/24 14:00	09/09/24 18:06	1
Chromium	ND		5.0	1.2	ug/L		09/06/24 14:00	09/09/24 18:06	1
Cobalt	**0.35**	**J**	1.0	0.086	ug/L		09/06/24 14:00	09/09/24 18:06	1
Lead	ND		1.0	0.45	ug/L		09/06/24 14:00	09/09/24 18:06	1
Lithium	**20**		8.0	3.4	ug/L		09/06/24 14:00	09/09/24 18:06	1
Magnesium	**35000**		1000	61	ug/L		09/06/24 14:00	09/09/24 18:06	1
Molybdenum	**1.3**	**J**	5.0	1.1	ug/L		09/06/24 14:00	09/09/24 18:06	1
Potassium	**3900**		1000	220	ug/L		09/06/24 14:00	09/09/24 18:06	1
Selenium	ND		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 18:06	1
Sodium	**91000**		1000	880	ug/L		09/06/24 14:00	09/09/24 18:06	1
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 18:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**500**		5.0	2.6	mg/L			09/13/24 20:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**500**		5.0	2.6	mg/L			09/13/24 20:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:40	1
Fluoride (EPA 300.0-1993 R2.1)	**0.096**		0.050	0.024	mg/L			09/30/24 19:32	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.168**		0.106	0.107	1.00	0.145	pCi/L	09/10/24 08:26	10/02/24 07:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:58*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.294	U	0.332	0.333	1.00	0.544	pCi/L	09/10/24 08:32	09/27/24 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*
Y Carrier	*84.5*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-04-F-A4-20240903-01
Date Collected: 09/03/24 14:45
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.463	U	0.349	0.350	5.00	0.544	pCi/L		10/02/24 16:25	1

Client Sample ID: FIELD BLANK-001-F-A4-20240903-01

Lab Sample ID: 240-210693-3

Date Collected: 09/03/24 15:00

Matrix: Water

Date Received: 09/06/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 18:08	1
Arsenic	ND		5.0	0.75	ug/L		09/06/24 14:00	09/09/24 18:08	1
Barium	ND		5.0	0.77	ug/L		09/06/24 14:00	09/10/24 16:03	1
Beryllium	ND		1.0	0.27	ug/L		09/06/24 14:00	09/09/24 18:08	1
Cadmium	**0.077**	**J**	1.0	0.077	ug/L		09/06/24 14:00	09/09/24 18:08	1
Calcium	ND		1000	250	ug/L		09/06/24 14:00	09/09/24 18:08	1
Chromium	ND		5.0	1.2	ug/L		09/06/24 14:00	09/09/24 18:08	1
Cobalt	ND		1.0	0.086	ug/L		09/06/24 14:00	09/09/24 18:08	1
Lead	ND		1.0	0.45	ug/L		09/06/24 14:00	09/09/24 18:08	1
Lithium	ND		8.0	3.4	ug/L		09/06/24 14:00	09/09/24 18:08	1
Magnesium	ND		1000	61	ug/L		09/06/24 14:00	09/09/24 18:08	1
Molybdenum	ND		5.0	1.1	ug/L		09/06/24 14:00	09/09/24 18:08	1
Potassium	ND		1000	220	ug/L		09/06/24 14:00	09/09/24 18:08	1
Selenium	ND		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 18:08	1
Sodium	ND		1000	880	ug/L		09/06/24 14:00	09/09/24 18:08	1
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 18:08	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:57	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			09/30/24 19:51	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0153	U	0.0600	0.0600	1.00	0.133	pCi/L	09/10/24 08:26	10/02/24 07:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:58*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.151	U	0.316	0.316	1.00	0.549	pCi/L	09/10/24 08:32	09/27/24 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*
Y Carrier	*84.5*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: FIELD BLANK-001-F-A4-20240903-01
Date Collected: 09/03/24 15:00
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-3
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.136	U	0.322	0.322	5.00	0.549	pCi/L		10/02/24 16:25	1

Client Sample ID: EB-001-F-A4-20240903-01
Lab Sample ID: 240-210693-4
Date Collected: 09/03/24 15:15
Matrix: Water
Date Received: 09/06/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 18:11	1
Arsenic	ND		5.0	0.75	ug/L		09/06/24 14:00	09/09/24 18:11	1
Barium	ND		5.0	0.77	ug/L		09/06/24 14:00	09/10/24 16:05	1
Beryllium	ND		1.0	0.27	ug/L		09/06/24 14:00	09/09/24 18:11	1
Cadmium	ND		1.0	0.077	ug/L		09/06/24 14:00	09/09/24 18:11	1
Calcium	ND		1000	250	ug/L		09/06/24 14:00	09/09/24 18:11	1
Chromium	ND		5.0	1.2	ug/L		09/06/24 14:00	09/09/24 18:11	1
Cobalt	ND		1.0	0.086	ug/L		09/06/24 14:00	09/09/24 18:11	1
Lead	ND		1.0	0.45	ug/L		09/06/24 14:00	09/09/24 18:11	1
Lithium	ND		8.0	3.4	ug/L		09/06/24 14:00	09/09/24 18:11	1
Magnesium	ND		1000	61	ug/L		09/06/24 14:00	09/09/24 18:11	1
Molybdenum	ND		5.0	1.1	ug/L		09/06/24 14:00	09/09/24 18:11	1
Potassium	ND		1000	220	ug/L		09/06/24 14:00	09/09/24 18:11	1
Selenium	ND		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 18:11	1
Sodium	ND		1000	880	ug/L		09/06/24 14:00	09/09/24 18:11	1
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 18:11	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 21:03	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 21:03	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 21:03	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			09/30/24 20:10	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0368	U	0.0670	0.0670	1.00	0.119	pCi/L	09/10/24 08:26	10/02/24 07:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:58*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0912	U	0.240	0.240	1.00	0.482	pCi/L	09/10/24 08:32	09/27/24 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.5*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*
Y Carrier	*86.7*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: EB-001-F-A4-20240903-01
Lab Sample ID: 240-210693-4
Date Collected: 09/03/24 15:15
Matrix: Water
Date Received: 09/06/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0544	U	0.249	0.249	5.00	0.482	pCi/L		10/02/24 16:25	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-06-F-A4-20240904-01

Date Collected: 09/04/24 12:53
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-5

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 18:13	1
Arsenic	**2.0**	**J**	5.0	0.75	ug/L		09/06/24 14:00	09/09/24 18:13	1
Barium	**290**		5.0	0.77	ug/L		09/06/24 14:00	09/10/24 16:08	1
Beryllium	ND		1.0	0.27	ug/L		09/06/24 14:00	09/09/24 18:13	1
Cadmium	ND		1.0	0.077	ug/L		09/06/24 14:00	09/09/24 18:13	1
Calcium	**59000**		1000	250	ug/L		09/06/24 14:00	09/09/24 18:13	1
Chromium	**2.2**	**J**	5.0	1.2	ug/L		09/06/24 14:00	09/09/24 18:13	1
Cobalt	**1.4**		1.0	0.086	ug/L		09/06/24 14:00	09/09/24 18:13	1
Lead	**0.89**	**J**	1.0	0.45	ug/L		09/06/24 14:00	09/09/24 18:13	1
Lithium	**8.6**		8.0	3.4	ug/L		09/06/24 14:00	09/09/24 18:13	1
Magnesium	**13000**		1000	61	ug/L		09/06/24 14:00	09/09/24 18:13	1
Molybdenum	**12**		5.0	1.1	ug/L		09/06/24 14:00	09/09/24 18:13	1
Potassium	**2300**		1000	220	ug/L		09/06/24 14:00	09/09/24 18:13	1
Selenium	ND		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 18:13	1
Sodium	**240000**		1000	880	ug/L		09/06/24 14:00	09/09/24 18:13	1
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 18:13	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**510**		5.0	2.6	mg/L			09/13/24 21:11	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**510**		5.0	2.6	mg/L			09/13/24 21:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 21:11	1
Fluoride (EPA 300.0-1993 R2.1)	**0.71**		0.050	0.024	mg/L			10/02/24 19:21	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.694**		0.260	0.267	1.00	0.247	pCi/L	09/10/24 08:26	10/02/24 07:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:58*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.995	U G	0.830	0.835	1.00	1.29	pCi/L	09/10/24 08:32	09/27/24 12:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*
Y Carrier	*76.6*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:18*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-06-F-A4-20240904-01
Date Collected: 09/04/24 12:53
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-5
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.69		0.870	0.877	5.00	1.29	pCi/L		10/02/24 16:25	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-03-F-A4-20240904-01

Date Collected: 09/04/24 11:41
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-6

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 18:16	1
Arsenic	**1.9**	**J**	5.0	0.75	ug/L		09/06/24 14:00	09/09/24 18:16	1
Barium	**640**		50	7.7	ug/L		09/06/24 14:00	09/10/24 16:10	10
Beryllium	ND		1.0	0.27	ug/L		09/06/24 14:00	09/09/24 18:16	1
Cadmium	**0.19**	**J**	1.0	0.077	ug/L		09/06/24 14:00	09/09/24 18:16	1
Calcium	**350000**		1000	250	ug/L		09/06/24 14:00	09/09/24 18:16	1
Chromium	**1.3**	**J**	5.0	1.2	ug/L		09/06/24 14:00	09/09/24 18:16	1
Cobalt	**1.9**		1.0	0.086	ug/L		09/06/24 14:00	09/09/24 18:16	1
Lead	**1.8**		1.0	0.45	ug/L		09/06/24 14:00	09/09/24 18:16	1
Lithium	**600**		8.0	3.4	ug/L		09/06/24 14:00	09/09/24 18:16	1
Magnesium	**130000**		1000	61	ug/L		09/06/24 14:00	09/09/24 18:16	1
Molybdenum	**180**		5.0	1.1	ug/L		09/06/24 14:00	09/09/24 18:16	1
Potassium	**22000**		1000	220	ug/L		09/06/24 14:00	09/09/24 18:16	1
Selenium	**5.1**		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 18:16	1
Sodium	**7900000**		10000	8800	ug/L		09/06/24 14:00	09/10/24 16:10	10
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 18:16	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**220**		5.0	2.6	mg/L			09/13/24 21:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**220**		5.0	2.6	mg/L			09/13/24 21:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 21:18	1
Fluoride (EPA 300.0-1993 R2.1)	**0.66**		0.50	0.24	mg/L			10/02/24 19:38	10

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.67**		0.247	0.289	1.00	0.125	pCi/L	09/10/24 08:26	10/02/24 07:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:58*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**2.65**		0.705	0.746	1.00	0.767	pCi/L	09/10/24 08:32	09/27/24 14:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*09/10/24 08:32*	*09/27/24 14:12*	*1*
Y Carrier	*69.2*		*30 - 110*	*09/10/24 08:32*	*09/27/24 14:12*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-210693-1

Client Sample ID: 2022-03-F-A4-20240904-01
Date Collected: 09/04/24 11:41
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210693-6
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.32		0.747	0.800	5.00	0.767	pCi/L		10/02/24 16:25	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba (30-110)
240-210693-1	2022-05-F-A4-20240903-01	102
240-210693-2	2022-04-F-A4-20240903-01	93.6
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	96.8
240-210693-4	EB-001-F-A4-20240903-01	97.5
240-210693-5	2022-06-F-A4-20240904-01	85.0
240-210693-6	2022-03-F-A4-20240904-01	100
LCS 160-678826/2-A	Lab Control Sample	93.3
MB 160-678826/1-A	Method Blank	92.4

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba (30-110)	Y (30-110)
240-210693-1	2022-05-F-A4-20240903-01	102	78.5
240-210693-2	2022-04-F-A4-20240903-01	93.6	84.5
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	96.8	84.5
240-210693-4	EB-001-F-A4-20240903-01	97.5	86.7
240-210693-5	2022-06-F-A4-20240904-01	85.0	76.6
240-210693-6	2022-03-F-A4-20240904-01	100	69.2
LCS 160-678827/2-A	Lab Control Sample	93.3	89.7
MB 160-678827/1-A	Method Blank	92.4	87.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-626069/1-A
Matrix: Water
Analysis Batch: 626309

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/06/24 14:00	09/09/24 13:40	1
Arsenic	ND		5.0	0.75	ug/L		09/06/24 14:00	09/09/24 13:40	1
Barium	ND		5.0	0.77	ug/L		09/06/24 14:00	09/09/24 13:40	1
Beryllium	ND		1.0	0.27	ug/L		09/06/24 14:00	09/09/24 13:40	1
Cadmium	ND		1.0	0.077	ug/L		09/06/24 14:00	09/09/24 13:40	1
Calcium	ND		1000	250	ug/L		09/06/24 14:00	09/09/24 13:40	1
Chromium	ND		5.0	1.2	ug/L		09/06/24 14:00	09/09/24 13:40	1
Cobalt	ND		1.0	0.086	ug/L		09/06/24 14:00	09/09/24 13:40	1
Lead	ND		1.0	0.45	ug/L		09/06/24 14:00	09/09/24 13:40	1
Lithium	ND		8.0	3.4	ug/L		09/06/24 14:00	09/09/24 13:40	1
Magnesium	ND		1000	61	ug/L		09/06/24 14:00	09/09/24 13:40	1
Molybdenum	ND		5.0	1.1	ug/L		09/06/24 14:00	09/09/24 13:40	1
Potassium	ND		1000	220	ug/L		09/06/24 14:00	09/09/24 13:40	1
Selenium	ND		5.0	0.89	ug/L		09/06/24 14:00	09/09/24 13:40	1
Sodium	ND		1000	880	ug/L		09/06/24 14:00	09/09/24 13:40	1
Thallium	ND		1.0	0.51	ug/L		09/06/24 14:00	09/09/24 13:40	1

Lab Sample ID: LCS 240-626069/3-A
Matrix: Water
Analysis Batch: 626309

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			100	97.2		ug/L		97	80 - 120		
Arsenic			1000	941		ug/L		94	80 - 120		
Barium			1000	946		ug/L		95	80 - 120		
Beryllium			500	480		ug/L		96	80 - 120		
Cadmium			500	474		ug/L		95	80 - 120		
Calcium			25000	24200		ug/L		97	80 - 120		
Chromium			500	474		ug/L		95	80 - 120		
Cobalt			500	515		ug/L		103	80 - 120		
Lead			500	518		ug/L		104	80 - 120		
Lithium			500	456		ug/L		91	80 - 120		
Magnesium			25000	24300		ug/L		97	80 - 120		
Molybdenum			500	467		ug/L		93	80 - 120		
Potassium			25000	24600		ug/L		98	80 - 120		
Selenium			1000	981		ug/L		98	80 - 120		
Sodium			25000	24400		ug/L		98	80 - 120		
Thallium			1000	1080		ug/L		108	80 - 120		

Lab Sample ID: 240-210693-1 MS
Matrix: Water
Analysis Batch: 626478

Client Sample ID: 2022-05-F-A4-20240903-01
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium	2500		1000	3420		ug/L		91	80 - 120		
Lithium	78		500	598		ug/L		104	80 - 120		
Sodium	2900000		25000	2920000	4	ug/L		176	80 - 120		

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-210693-1 MSD — **Client Sample ID: 2022-05-F-A4-20240903-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 626478 — **Prep Batch: 626069**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	2500		1000	3520		ug/L		102	80 - 120	3	20
Lithium	78		500	592		ug/L		103	80 - 120	1	20
Sodium	2900000		25000	2920000	4	ug/L		209	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-626072/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 626372 — **Prep Batch: 626072**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/06/24 14:00	09/09/24 15:19	1

Lab Sample ID: LCS 240-626072/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 626372 — **Prep Batch: 626072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.93		ug/L		99	80 - 120

Lab Sample ID: 240-210693-1 MS — **Client Sample ID: 2022-05-F-A4-20240903-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 626372 — **Prep Batch: 626072**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.893		ug/L		89	80 - 120

Lab Sample ID: 240-210693-1 MSD — **Client Sample ID: 2022-05-F-A4-20240903-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 626372 — **Prep Batch: 626072**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.885		ug/L		89	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-627328/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627328

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/13/24 18:17	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/13/24 18:17	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/13/24 18:17	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-627328/33
Matrix: Water
Analysis Batch: 627328

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/13/24 20:52	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/13/24 20:52	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/13/24 20:52	1

Lab Sample ID: LCS 240-627328/32
Matrix: Water
Analysis Batch: 627328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	272		mg/L		97	86 - 123

Lab Sample ID: LCS 240-627328/4
Matrix: Water
Analysis Batch: 627328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	271		mg/L		97	86 - 123

Lab Sample ID: 240-210693-4 DU
Matrix: Water
Analysis Batch: 627328

Client Sample ID: EB-001-F-A4-20240903-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	ND		ND		mg/L		NC	20
Bicarbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-628817/3
Matrix: Water
Analysis Batch: 628817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			09/30/24 17:17	1

Lab Sample ID: LCS 240-628817/4
Matrix: Water
Analysis Batch: 628817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.72		mg/L		109	90 - 110

Lab Sample ID: MB 240-629300/3
Matrix: Water
Analysis Batch: 629300

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			10/02/24 15:57	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-629300/4
Matrix: Water
Analysis Batch: 629300

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.44		mg/L		97	90 - 110		

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-678826/1-A
Matrix: Water
Analysis Batch: 681767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678826

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02451	U	0.0563	0.0564	1.00	0.106	pCi/L	09/10/24 08:26	10/02/24 07:53	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*09/10/24 08:26*	*10/02/24 07:53*	*1*

Lab Sample ID: LCS 160-678826/2-A
Matrix: Water
Analysis Batch: 681767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678826

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	10.02		1.09	1.00	0.135	pCi/L	105	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*93.3*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-678827/1-A
Matrix: Water
Analysis Batch: 681284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 678827

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4730	U	0.376	0.379	1.00	0.586	pCi/L	09/10/24 08:32	09/27/24 12:19	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:19*	*1*
Y Carrier	*87.5*		*30 - 110*	*09/10/24 08:32*	*09/27/24 12:19*	*1*

Lab Sample ID: LCS 160-678827/2-A
Matrix: Water
Analysis Batch: 681284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678827

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.48	9.337		1.26	1.00	0.490	pCi/L	110	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-678827/2-A
Matrix: Water
Analysis Batch: 681284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 678827

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.3		30 - 110
Y Carrier	89.7		30 - 110

Metals

Prep Batch: 626069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total Recoverable	Water	3005A	
240-210693-2	2022-04-F-A4-20240903-01	Total Recoverable	Water	3005A	
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total Recoverable	Water	3005A	
240-210693-4	EB-001-F-A4-20240903-01	Total Recoverable	Water	3005A	
240-210693-5	2022-06-F-A4-20240904-01	Total Recoverable	Water	3005A	
240-210693-6	2022-03-F-A4-20240904-01	Total Recoverable	Water	3005A	
MB 240-626069/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-626069/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-210693-1 MS	2022-05-F-A4-20240903-01	Total Recoverable	Water	3005A	
240-210693-1 MSD	2022-05-F-A4-20240903-01	Total Recoverable	Water	3005A	

Prep Batch: 626072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total/NA	Water	7470A	
240-210693-2	2022-04-F-A4-20240903-01	Total/NA	Water	7470A	
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total/NA	Water	7470A	
240-210693-4	EB-001-F-A4-20240903-01	Total/NA	Water	7470A	
240-210693-5	2022-06-F-A4-20240904-01	Total/NA	Water	7470A	
240-210693-6	2022-03-F-A4-20240904-01	Total/NA	Water	7470A	
MB 240-626072/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-626072/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-210693-1 MS	2022-05-F-A4-20240903-01	Total/NA	Water	7470A	
240-210693-1 MSD	2022-05-F-A4-20240903-01	Total/NA	Water	7470A	

Analysis Batch: 626309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-2	2022-04-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-4	EB-001-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-5	2022-06-F-A4-20240904-01	Total Recoverable	Water	6020B	626069
240-210693-6	2022-03-F-A4-20240904-01	Total Recoverable	Water	6020B	626069
MB 240-626069/1-A	Method Blank	Total Recoverable	Water	6020B	626069
LCS 240-626069/3-A	Lab Control Sample	Total Recoverable	Water	6020B	626069
240-210693-1 MS	2022-05-F-A4-20240903-01	Total Recoverable	Water	6020B	
240-210693-1 MSD	2022-05-F-A4-20240903-01	Total Recoverable	Water	6020B	

Analysis Batch: 626372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total/NA	Water	7470A	626072
240-210693-2	2022-04-F-A4-20240903-01	Total/NA	Water	7470A	626072
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total/NA	Water	7470A	626072
240-210693-4	EB-001-F-A4-20240903-01	Total/NA	Water	7470A	626072
240-210693-5	2022-06-F-A4-20240904-01	Total/NA	Water	7470A	626072
240-210693-6	2022-03-F-A4-20240904-01	Total/NA	Water	7470A	626072
MB 240-626072/1-A	Method Blank	Total/NA	Water	7470A	626072
LCS 240-626072/2-A	Lab Control Sample	Total/NA	Water	7470A	626072
240-210693-1 MS	2022-05-F-A4-20240903-01	Total/NA	Water	7470A	626072
240-210693-1 MSD	2022-05-F-A4-20240903-01	Total/NA	Water	7470A	626072

Metals

Analysis Batch: 626478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-2	2022-04-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-4	EB-001-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-5	2022-06-F-A4-20240904-01	Total Recoverable	Water	6020B	626069
240-210693-6	2022-03-F-A4-20240904-01	Total Recoverable	Water	6020B	626069
240-210693-1 MS	2022-05-F-A4-20240903-01	Total Recoverable	Water	6020B	626069
240-210693-1 MSD	2022-05-F-A4-20240903-01	Total Recoverable	Water	6020B	626069

General Chemistry

Analysis Batch: 627328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total/NA	Water	2320B-1997	
240-210693-2	2022-04-F-A4-20240903-01	Total/NA	Water	2320B-1997	
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total/NA	Water	2320B-1997	
240-210693-4	EB-001-F-A4-20240903-01	Total/NA	Water	2320B-1997	
240-210693-5	2022-06-F-A4-20240904-01	Total/NA	Water	2320B-1997	
240-210693-6	2022-03-F-A4-20240904-01	Total/NA	Water	2320B-1997	
MB 240-627328/3	Method Blank	Total/NA	Water	2320B-1997	
MB 240-627328/33	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-627328/32	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-627328/4	Lab Control Sample	Total/NA	Water	2320B-1997	
240-210693-4 DU	EB-001-F-A4-20240903-01	Total/NA	Water	2320B-1997	

Analysis Batch: 628817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total/NA	Water	300.0-1993 R2.1	
240-210693-2	2022-04-F-A4-20240903-01	Total/NA	Water	300.0-1993 R2.1	
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total/NA	Water	300.0-1993 R2.1	
240-210693-4	EB-001-F-A4-20240903-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-628817/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-628817/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 629300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-5	2022-06-F-A4-20240904-01	Total/NA	Water	300.0-1993 R2.1	
240-210693-6	2022-03-F-A4-20240904-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-629300/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-629300/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 678826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total/NA	Water	PrecSep-21	
240-210693-2	2022-04-F-A4-20240903-01	Total/NA	Water	PrecSep-21	
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total/NA	Water	PrecSep-21	
240-210693-4	EB-001-F-A4-20240903-01	Total/NA	Water	PrecSep-21	
240-210693-5	2022-06-F-A4-20240904-01	Total/NA	Water	PrecSep-21	
240-210693-6	2022-03-F-A4-20240904-01	Total/NA	Water	PrecSep-21	
MB 160-678826/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 678826 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-678826/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 678827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210693-1	2022-05-F-A4-20240903-01	Total/NA	Water	PrecSep_0	
240-210693-2	2022-04-F-A4-20240903-01	Total/NA	Water	PrecSep_0	
240-210693-3	FIELD BLANK-001-F-A4-20240903-01	Total/NA	Water	PrecSep_0	
240-210693-4	EB-001-F-A4-20240903-01	Total/NA	Water	PrecSep_0	
240-210693-5	2022-06-F-A4-20240904-01	Total/NA	Water	PrecSep_0	
240-210693-6	2022-03-F-A4-20240904-01	Total/NA	Water	PrecSep_0	
MB 160-678827/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-678827/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-05-F-A4-20240903-01
Lab Sample ID: 240-210693-1

Date Collected: 09/03/24 13:15
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 17:49
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		5	626478	AJC	EET CLE	09/10/24 15:48
Total/NA	Prep	7470A			626072	XWS6	EET CLE	09/06/24 14:00
Total/NA	Analysis	7470A		1	626372	S4FJ	EET CLE	09/09/24 15:23
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:34
Total/NA	Analysis	300.0-1993 R2.1		5	628817	JWW	EET CLE	09/30/24 19:12
Total/NA	Prep	PrecSep-21			678826	BCE	EET SL	09/10/24 08:26
Total/NA	Analysis	9315		1	681957	SWS	EET SL	10/02/24 07:58
Total/NA	Prep	PrecSep_0			678827	BCE	EET SL	09/10/24 08:32
Total/NA	Analysis	9320		1	681284	FLC	EET SL	09/27/24 12:18
Total/NA	Analysis	Ra226_Ra228		1	681985	FLC	EET SL	10/02/24 16:25

Client Sample ID: 2022-04-F-A4-20240903-01
Lab Sample ID: 240-210693-2

Date Collected: 09/03/24 14:45
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:06
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626478	AJC	EET CLE	09/10/24 16:00
Total/NA	Prep	7470A			626072	XWS6	EET CLE	09/06/24 14:00
Total/NA	Analysis	7470A		1	626372	S4FJ	EET CLE	09/09/24 15:35
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:40
Total/NA	Analysis	300.0-1993 R2.1		1	628817	JWW	EET CLE	09/30/24 19:32
Total/NA	Prep	PrecSep-21			678826	BCE	EET SL	09/10/24 08:26
Total/NA	Analysis	9315		1	681957	SWS	EET SL	10/02/24 07:58
Total/NA	Prep	PrecSep_0			678827	BCE	EET SL	09/10/24 08:32
Total/NA	Analysis	9320		1	681284	FLC	EET SL	09/27/24 12:18
Total/NA	Analysis	Ra226_Ra228		1	681985	FLC	EET SL	10/02/24 16:25

Client Sample ID: FIELD BLANK-001-F-A4-20240903-01
Lab Sample ID: 240-210693-3

Date Collected: 09/03/24 15:00
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:08
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626478	AJC	EET CLE	09/10/24 16:03
Total/NA	Prep	7470A			626072	XWS6	EET CLE	09/06/24 14:00
Total/NA	Analysis	7470A		1	626372	S4FJ	EET CLE	09/09/24 15:40

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELD BLANK-001-F-A4-20240903-01
Lab Sample ID: 240-210693-3
Date Collected: 09/03/24 15:00
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:57
Total/NA	Analysis	300.0-1993 R2.1		1	628817	JWW	EET CLE	09/30/24 19:51
Total/NA	Prep	PrecSep-21			678826	BCE	EET SL	09/10/24 08:26
Total/NA	Analysis	9315		1	681957	SWS	EET SL	10/02/24 07:58
Total/NA	Prep	PrecSep_0			678827	BCE	EET SL	09/10/24 08:32
Total/NA	Analysis	9320		1	681284	FLC	EET SL	09/27/24 12:18
Total/NA	Analysis	Ra226_Ra228		1	681985	FLC	EET SL	10/02/24 16:25

Client Sample ID: EB-001-F-A4-20240903-01
Lab Sample ID: 240-210693-4
Date Collected: 09/03/24 15:15
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:11
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626478	AJC	EET CLE	09/10/24 16:05
Total/NA	Prep	7470A			626072	XWS6	EET CLE	09/06/24 14:00
Total/NA	Analysis	7470A		1	626372	S4FJ	EET CLE	09/09/24 15:41
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 21:03
Total/NA	Analysis	300.0-1993 R2.1		1	628817	JWW	EET CLE	09/30/24 20:10
Total/NA	Prep	PrecSep-21			678826	BCE	EET SL	09/10/24 08:26
Total/NA	Analysis	9315		1	681957	SWS	EET SL	10/02/24 07:58
Total/NA	Prep	PrecSep_0			678827	BCE	EET SL	09/10/24 08:32
Total/NA	Analysis	9320		1	681284	FLC	EET SL	09/27/24 12:18
Total/NA	Analysis	Ra226_Ra228		1	681985	FLC	EET SL	10/02/24 16:25

Client Sample ID: 2022-06-F-A4-20240904-01
Lab Sample ID: 240-210693-5
Date Collected: 09/04/24 12:53
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:13
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626478	AJC	EET CLE	09/10/24 16:08
Total/NA	Prep	7470A			626072	XWS6	EET CLE	09/06/24 14:00
Total/NA	Analysis	7470A		1	626372	S4FJ	EET CLE	09/09/24 15:43
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 21:11
Total/NA	Analysis	300.0-1993 R2.1		1	629300	JWW	EET CLE	10/02/24 19:21
Total/NA	Prep	PrecSep-21			678826	BCE	EET SL	09/10/24 08:26
Total/NA	Analysis	9315		1	681957	SWS	EET SL	10/02/24 07:58
Total/NA	Prep	PrecSep_0			678827	BCE	EET SL	09/10/24 08:32
Total/NA	Analysis	9320		1	681284	FLC	EET SL	09/27/24 12:18

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-06-F-A4-20240904-01
Lab Sample ID: 240-210693-5

Date Collected: 09/04/24 12:53
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Ra226_Ra228		1	681985	FLC	EET SL	10/02/24 16:25

Client Sample ID: 2022-03-F-A4-20240904-01
Lab Sample ID: 240-210693-6

Date Collected: 09/04/24 11:41
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:16
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		10	626478	AJC	EET CLE	09/10/24 16:10
Total/NA	Prep	7470A			626072	XWS6	EET CLE	09/06/24 14:00
Total/NA	Analysis	7470A		1	626372	S4FJ	EET CLE	09/09/24 15:45
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 21:18
Total/NA	Analysis	300.0-1993 R2.1		10	629300	JWW	EET CLE	10/02/24 19:38
Total/NA	Prep	PrecSep-21			678826	BCE	EET SL	09/10/24 08:26
Total/NA	Analysis	9315		1	681957	SWS	EET SL	10/02/24 07:58
Total/NA	Prep	PrecSep_0			678827	BCE	EET SL	09/10/24 08:32
Total/NA	Analysis	9320		1	681284	FLC	EET SL	09/27/24 14:12
Total/NA	Analysis	Ra226_Ra228		1	681985	FLC	EET SL	10/02/24 16:25

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210693-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus eurofins Environment Testing America

Client Information	Sampler: Bobby Custe	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra226, Ra228Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-05-F-A4-20240903-01	9-3-24	1315	G	Water	N		1	1	1	2		
2022-04-F-A4-20240903-01	9-3-24	1445	G	Water	N		1	1	1	2		
Field Blank-001-F-A4-20240903-01	9-3-24	1500	G	Water	N		1	1	1	2		
EB-001-F-A4-20240903-01	9-3-24	1515	G	Water	N		1	1	1	2		
2022-06-F-A4-20240904-01	9-4-24	1253	G	Water	N		1	1	1	2		
2022-03-F-A4-20240904-01	9-4-24	1141	G	W	N		1	1	1	2		

240-210693 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer t
☐ Return To Client ☐ Disposal By Lab ☐ Archive For

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Bobby Custe	Date/Time: 9-5-24 / 0945	Company: KEMRON	Received by: Ashley Deal	Date/Time: 9.5.24 1230	Company: ETA		
Relinquished by: Ashley Deal	Date/Time: 9-5-24 1800	Company: ETA	Received by:	Date/Time: 9-6-24 800	Company: EC		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Gavin Site Name _____ Cooler unpacked by:

Cooler Received on 9-6 24 Opened on 9-6 24

FedEx 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam Plastic Bag None Other _____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12 Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	1.7	1.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.5	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.0	0.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
☐ See Temperature Excursion Form				

9/6/2024

Login Container Summary Report

240-210693

10/4/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A4-20240903-01	240-210693-A-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20240903-01	240-210693-B-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20240903-01	240-210693-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-A4-20240903-01	240-210693-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-A4-20240903-01	240-210693-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-A4-20240903-01	240-210693-A-2	Plastic 250ml - unpreserved				
2022-04-F-A4-20240903-01	240-210693-B-2	Plastic 250ml - unpreserved				
2022-04-F-A4-20240903-01	240-210693-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-A4-20240903-01	240-210693-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-A4-20240903-01	240-210693-E-2	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001-F-A4-20240903-01	240-210693-A-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A4-20240903-01	240-210693-B-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A4-20240903-01	240-210693-C-3	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-A4-20240903-01	240-210693-D-3	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001-F-A4-20240903-01	240-210693-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240903-01	240-210693-A-4	Plastic 250ml - unpreserved				
EB-001-F-A4-20240903-01	240-210693-B-4	Plastic 250ml - unpreserved				
EB-001-F-A4-20240903-01	240-210693-C-4	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A4-20240903-01	240-210693-D-4	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20240903-01	240-210693-E-4	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-A4-20240904-01	240-210693-A-5	Plastic 250ml - unpreserved				
2022-06-F-A4-20240904-01	240-210693-B-5	Plastic 250ml - unpreserved				
2022-06-F-A4-20240904-01	240-210693-C-5	Plastic 500ml - with Nitric Acid	<2			
2022-06-F-A4-20240904-01	240-210693-D-5	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-A4-20240904-01	240-210693-E-5	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-A4-20240904-01	240-210693-A-6	Plastic 250ml - unpreserved				
2022-03-F-A4-20240904-01	240-210693-B-6	Plastic 250ml - unpreserved				
2022-03-F-A4-20240904-01	240-210693-C-6	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A4-20240904-01	240-210693-D-6	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-A4-20240904-01	240-210693-E-6	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190295.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-210693-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/8/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-05-F-A4-20240903-01 (240-210693-1)	9/3/24	13:15 Eastern	G	Water			X	X	X	2	
2022-04-F-A4-20240903-01 (240-210693-2)	9/3/24	14:45 Eastern	G	Water			X	X	X	2	
FIELD BLANK-001-F-A4-20240903-01 (240-210693-3)	9/3/24	15:00 Eastern	G	Water			X	X	X	2	
EB-001-F-A4-20240903-01 (240-210693-4)	9/3/24	15:15 Eastern	G	Water			X	X	X	2	
2022-06-F-A4-20240904-01 (240-210693-5)	9/4/24	12:53 Eastern	G	Water			X	X	X	2	
2022-03-F-A4-20240904-01 (240-210693-6)	9/4/24	11:41 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	JESSICA RIGDON	9-6-24 1600	EETNC			
2				M. Pinette	SEP 09 2024 0840	
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-210693-1

Login Number: 210693
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 09/09/24 12:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 9/18/2024 10:28:45 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-210694-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

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Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-210694-1 — Eurofins Cleveland

Job Narrative
240-210694-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/6/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.4°C and 1.6°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-210694-1	2022-05-F-A3-20240903-01	Water	09/03/24 13:15	09/06/24 08:00
240-210694-2	2022-04-F-A3-20240903-01	Water	09/03/24 14:45	09/06/24 08:00
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Water	09/03/24 15:00	09/06/24 08:00
240-210694-4	EB-001-F-A3-20240903-01	Water	09/03/24 15:15	09/06/24 08:00
240-210694-5	2022-06-F-A3-20240904-01	Water	09/04/24 12:53	09/06/24 08:00
240-210694-6	2022-03-F-A3-20240904-01	Water	09/04/24 11:41	09/06/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Client Sample ID: 2022-05-F-A3-20240903-01 — Lab Sample ID: 240-210694-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Calcium	88000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	27000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	6100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2700000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	190		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	5100		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	36		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3300		100	78	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-04-F-A3-20240903-01 — Lab Sample ID: 240-210694-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	790		100	57	ug/L	1		6010D	Total Recoverable
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	35000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	86000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	36		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.10		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	91		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	600		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELD BLANK-001-F-A3-20240903-01 — Lab Sample ID: 240-210694-3

No Detections.

Client Sample ID: EB-001-F-A3-20240903-01 — Lab Sample ID: 240-210694-4

No Detections.

Client Sample ID: 2022-06-F-A3-20240904-01 — Lab Sample ID: 240-210694-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable
Calcium	61000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2100		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-06-F-A3-20240904-01 (Continued)
Lab Sample ID: 240-210694-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	240000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	190		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.81		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	30		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	820		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-03-F-A3-20240904-01
Lab Sample ID: 240-210694-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Calcium	400000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	140000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	8800000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	18000		1000	130	mg/L	1000		300.0	Total/NA
Fluoride	0.72		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	330		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	23000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Client Sample ID: 2022-05-F-A3-20240903-01

Lab Sample ID: 240-210694-1

Date Collected: 09/03/24 13:15

Matrix: Water

Date Received: 09/06/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	390		100	57	ug/L		09/06/24 14:00	09/09/24 21:36	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	88000		1000	250	ug/L		09/06/24 14:00	09/09/24 18:31	1
Magnesium	27000		1000	61	ug/L		09/06/24 14:00	09/09/24 18:31	1
Potassium	6100		1000	220	ug/L		09/06/24 14:00	09/09/24 18:31	1
Sodium	2700000		1000	880	ug/L		09/06/24 14:00	09/09/24 18:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	190		5.0	2.6	mg/L			09/13/24 19:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	190		5.0	2.6	mg/L			09/13/24 19:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 19:53	1
Chloride (EPA 300.0)	5100		50	6.4	mg/L			09/13/24 02:21	50
Fluoride (EPA 300.0)	1.3		0.25	0.12	mg/L			09/13/24 01:59	5
Sulfate (EPA 300.0)	36		5.0	1.7	mg/L			09/13/24 01:59	5
Total Dissolved Solids (SM 2540C)	3300		100	78	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Client Sample ID: 2022-04-F-A3-20240903-01

Date Collected: 09/03/24 14:45
Date Received: 09/06/24 08:00

Lab Sample ID: 240-210694-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	790		100	57	ug/L		09/06/24 14:00	09/09/24 21:40	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		1000	250	ug/L		09/06/24 14:00	09/09/24 18:33	1
Magnesium	35000		1000	61	ug/L		09/06/24 14:00	09/09/24 18:33	1
Potassium	3800		1000	220	ug/L		09/06/24 14:00	09/09/24 18:33	1
Sodium	86000		1000	880	ug/L		09/06/24 14:00	09/09/24 18:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			09/13/24 20:00	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	500		5.0	2.6	mg/L			09/13/24 20:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:00	1
Chloride (EPA 300.0)	36		1.0	0.13	mg/L			09/13/24 02:43	1
Fluoride (EPA 300.0)	0.10		0.050	0.024	mg/L			09/13/24 02:43	1
Sulfate (EPA 300.0)	91		1.0	0.35	mg/L			09/13/24 02:43	1
Total Dissolved Solids (SM 2540C)	600		20	16	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: FIELD BLANK-001-F-A3-20240903-01

Lab Sample ID: 240-210694-3

Date Collected: 09/03/24 15:00
Matrix: Water
Date Received: 09/06/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/06/24 14:00	09/09/24 21:45	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		09/06/24 14:00	09/09/24 18:36	1
Magnesium	ND		1000	61	ug/L		09/06/24 14:00	09/09/24 18:36	1
Potassium	ND		1000	220	ug/L		09/06/24 14:00	09/09/24 18:36	1
Sodium	ND		1000	880	ug/L		09/06/24 14:00	09/09/24 18:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:09	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			09/13/24 03:26	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			09/13/24 03:26	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			09/13/24 03:26	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Client Sample ID: EB-001-F-A3-20240903-01

Lab Sample ID: 240-210694-4

Date Collected: 09/03/24 15:15
Matrix: Water
Date Received: 09/06/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/06/24 14:00	09/09/24 21:49	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		09/06/24 14:00	09/09/24 18:38	1
Magnesium	ND		1000	61	ug/L		09/06/24 14:00	09/09/24 18:38	1
Potassium	ND		1000	220	ug/L		09/06/24 14:00	09/09/24 18:38	1
Sodium	ND		1000	880	ug/L		09/06/24 14:00	09/09/24 18:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:13	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:13	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			09/13/24 14:03	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			09/13/24 14:03	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			09/13/24 14:03	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Client Sample ID: 2022-06-F-A3-20240904-01

Lab Sample ID: 240-210694-5

Date Collected: 09/04/24 12:53
Matrix: Water
Date Received: 09/06/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130		100	57	ug/L		09/06/24 14:00	09/09/24 21:53	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	61000		1000	250	ug/L		09/06/24 14:00	09/09/24 18:41	1
Magnesium	13000		1000	61	ug/L		09/06/24 14:00	09/09/24 18:41	1
Potassium	2100		1000	220	ug/L		09/06/24 14:00	09/09/24 18:41	1
Sodium	240000		1000	880	ug/L		09/06/24 14:00	09/09/24 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	510		5.0	2.6	mg/L			09/13/24 20:17	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	510		5.0	2.6	mg/L			09/13/24 20:17	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:17	1
Chloride (EPA 300.0)	190		1.0	0.13	mg/L			09/13/24 15:08	1
Fluoride (EPA 300.0)	0.81		0.050	0.024	mg/L			09/13/24 15:08	1
Sulfate (EPA 300.0)	30		1.0	0.35	mg/L			09/13/24 15:08	1
Total Dissolved Solids (SM 2540C)	820		20	16	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Client Sample ID: 2022-03-F-A3-20240904-01

Lab Sample ID: 240-210694-6

Date Collected: 09/04/24 11:41

Matrix: Water

Date Received: 09/06/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		09/06/24 14:00	09/09/24 21:58	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	400000		1000	250	ug/L		09/06/24 14:00	09/09/24 18:43	1
Magnesium	140000		1000	61	ug/L		09/06/24 14:00	09/09/24 18:43	1
Potassium	22000		1000	220	ug/L		09/06/24 14:00	09/09/24 18:43	1
Sodium	8800000		10000	8800	ug/L		09/06/24 14:00	09/10/24 16:20	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	200		5.0	2.6	mg/L			09/13/24 20:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	200		5.0	2.6	mg/L			09/13/24 20:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/13/24 20:23	1
Chloride (EPA 300.0)	18000		1000	130	mg/L			09/17/24 11:22	1000
Fluoride (EPA 300.0)	0.72		0.50	0.24	mg/L			09/13/24 15:51	10
Sulfate (EPA 300.0)	330		10	3.5	mg/L			09/13/24 15:51	10
Total Dissolved Solids (SM 2540C)	23000		1000	780	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-210694-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-626069/1-A
Matrix: Water
Analysis Batch: 626301

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/06/24 14:00	09/09/24 20:56	1

Lab Sample ID: LCS 240-626069/2-A
Matrix: Water
Analysis Batch: 626301

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1050		ug/L		105	80 - 120

Lab Sample ID: 240-210694-6 MS
Matrix: Water
Analysis Batch: 626301

Client Sample ID: 2022-03-F-A3-20240904-01
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	310		1000	1410		ug/L		110	75 - 125

Lab Sample ID: 240-210694-6 MSD
Matrix: Water
Analysis Batch: 626301

Client Sample ID: 2022-03-F-A3-20240904-01
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	310		1000	1390		ug/L		109	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-626069/1-A
Matrix: Water
Analysis Batch: 626309

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		09/06/24 14:00	09/09/24 13:40	1
Magnesium	ND		1000	61	ug/L		09/06/24 14:00	09/09/24 13:40	1
Potassium	ND		1000	220	ug/L		09/06/24 14:00	09/09/24 13:40	1
Sodium	ND		1000	880	ug/L		09/06/24 14:00	09/09/24 13:40	1

Lab Sample ID: LCS 240-626069/3-A
Matrix: Water
Analysis Batch: 626309

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 626069

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24200		ug/L		97	80 - 120
Magnesium	25000	24300		ug/L		97	80 - 120
Potassium	25000	24600		ug/L		98	80 - 120
Sodium	25000	24400		ug/L		98	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-627328/3
Matrix: Water
Analysis Batch: 627328

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/13/24 18:17	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/13/24 18:17	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/13/24 18:17	1

Lab Sample ID: LCS 240-627328/4
Matrix: Water
Analysis Batch: 627328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	271		mg/L		97	86 - 123

Lab Sample ID: 240-210694-6 DU
Matrix: Water
Analysis Batch: 627328

Client Sample ID: 2022-03-F-A3-20240904-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	200		198		mg/L		0.3	20
Bicarbonate Alkalinity as CaCO3	200		198		mg/L		0.3	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-626681/3
Matrix: Water
Analysis Batch: 626681

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/12/24 16:12	1
Fluoride	ND		0.050	0.024	mg/L			09/12/24 16:12	1
Sulfate	ND		1.0	0.35	mg/L			09/12/24 16:12	1

Lab Sample ID: LCS 240-626681/4
Matrix: Water
Analysis Batch: 626681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.3		mg/L		101	90 - 110
Fluoride	2.50	2.63		mg/L		105	90 - 110
Sulfate	50.0	52.0		mg/L		104	90 - 110

Lab Sample ID: MB 240-626979/3
Matrix: Water
Analysis Batch: 626979

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/13/24 13:19	1
Fluoride	ND		0.050	0.024	mg/L			09/13/24 13:19	1
Sulfate	ND		1.0	0.35	mg/L			09/13/24 13:19	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-626979/4
Matrix: Water
Analysis Batch: 626979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.1		mg/L		100	90 - 110		
Fluoride			2.50	2.58		mg/L		103	90 - 110		
Sulfate			50.0	52.0		mg/L		104	90 - 110		

Lab Sample ID: 240-210694-4 MS
Matrix: Water
Analysis Batch: 626979

Client Sample ID: EB-001-F-A3-20240903-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	ND		50.0	49.8		mg/L		100	80 - 120		
Fluoride	ND		2.50	2.53		mg/L		101	80 - 120		
Sulfate	ND		50.0	51.1		mg/L		102	80 - 120		

Lab Sample ID: 240-210694-4 MSD
Matrix: Water
Analysis Batch: 626979

Client Sample ID: EB-001-F-A3-20240903-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	49.4		mg/L		99	80 - 120	1	15
Fluoride	ND		2.50	2.51		mg/L		100	80 - 120	1	15
Sulfate	ND		50.0	50.7		mg/L		101	80 - 120	1	15

Lab Sample ID: MB 240-627224/4
Matrix: Water
Analysis Batch: 627224

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/17/24 06:40	1
Fluoride	ND		0.050	0.024	mg/L			09/17/24 06:40	1
Sulfate	ND		1.0	0.35	mg/L			09/17/24 06:40	1

Lab Sample ID: LCS 240-627224/5
Matrix: Water
Analysis Batch: 627224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	49.2		mg/L		98	90 - 110		
Fluoride			2.50	2.55		mg/L		102	90 - 110		
Sulfate			50.0	51.6		mg/L		103	90 - 110		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-626222/1
Matrix: Water
Analysis Batch: 626222

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/09/24 08:55	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-626222/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 626222

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	644		mg/L		89	80 - 120		

Metals

Prep Batch: 626069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-1	2022-05-F-A3-20240903-01	Total Recoverable	Water	3005A	
240-210694-2	2022-04-F-A3-20240903-01	Total Recoverable	Water	3005A	
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Total Recoverable	Water	3005A	
240-210694-4	EB-001-F-A3-20240903-01	Total Recoverable	Water	3005A	
240-210694-5	2022-06-F-A3-20240904-01	Total Recoverable	Water	3005A	
240-210694-6	2022-03-F-A3-20240904-01	Total Recoverable	Water	3005A	
MB 240-626069/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-626069/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-626069/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-210694-6 MS	2022-03-F-A3-20240904-01	Total Recoverable	Water	3005A	
240-210694-6 MSD	2022-03-F-A3-20240904-01	Total Recoverable	Water	3005A	

Analysis Batch: 626301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-1	2022-05-F-A3-20240903-01	Total Recoverable	Water	6010D	626069
240-210694-2	2022-04-F-A3-20240903-01	Total Recoverable	Water	6010D	626069
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Total Recoverable	Water	6010D	626069
240-210694-4	EB-001-F-A3-20240903-01	Total Recoverable	Water	6010D	626069
240-210694-5	2022-06-F-A3-20240904-01	Total Recoverable	Water	6010D	626069
240-210694-6	2022-03-F-A3-20240904-01	Total Recoverable	Water	6010D	626069
MB 240-626069/1-A	Method Blank	Total Recoverable	Water	6010D	626069
LCS 240-626069/2-A	Lab Control Sample	Total Recoverable	Water	6010D	626069
240-210694-6 MS	2022-03-F-A3-20240904-01	Total Recoverable	Water	6010D	626069
240-210694-6 MSD	2022-03-F-A3-20240904-01	Total Recoverable	Water	6010D	626069

Analysis Batch: 626309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-1	2022-05-F-A3-20240903-01	Total Recoverable	Water	6020B	626069
240-210694-2	2022-04-F-A3-20240903-01	Total Recoverable	Water	6020B	626069
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Total Recoverable	Water	6020B	626069
240-210694-4	EB-001-F-A3-20240903-01	Total Recoverable	Water	6020B	626069
240-210694-5	2022-06-F-A3-20240904-01	Total Recoverable	Water	6020B	626069
240-210694-6	2022-03-F-A3-20240904-01	Total Recoverable	Water	6020B	626069
MB 240-626069/1-A	Method Blank	Total Recoverable	Water	6020B	626069
LCS 240-626069/3-A	Lab Control Sample	Total Recoverable	Water	6020B	626069

Analysis Batch: 626478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-6	2022-03-F-A3-20240904-01	Total Recoverable	Water	6020B	626069

General Chemistry

Analysis Batch: 626222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-1	2022-05-F-A3-20240903-01	Total/NA	Water	SM 2540C	
240-210694-2	2022-04-F-A3-20240903-01	Total/NA	Water	SM 2540C	
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Total/NA	Water	SM 2540C	
240-210694-4	EB-001-F-A3-20240903-01	Total/NA	Water	SM 2540C	
240-210694-5	2022-06-F-A3-20240904-01	Total/NA	Water	SM 2540C	
240-210694-6	2022-03-F-A3-20240904-01	Total/NA	Water	SM 2540C	
MB 240-626222/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 626222 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-626222/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 626681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-1	2022-05-F-A3-20240903-01	Total/NA	Water	300.0	
240-210694-1	2022-05-F-A3-20240903-01	Total/NA	Water	300.0	
240-210694-2	2022-04-F-A3-20240903-01	Total/NA	Water	300.0	
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Total/NA	Water	300.0	
MB 240-626681/3	Method Blank	Total/NA	Water	300.0	
LCS 240-626681/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 626979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-4	EB-001-F-A3-20240903-01	Total/NA	Water	300.0	
240-210694-5	2022-06-F-A3-20240904-01	Total/NA	Water	300.0	
240-210694-6	2022-03-F-A3-20240904-01	Total/NA	Water	300.0	
MB 240-626979/3	Method Blank	Total/NA	Water	300.0	
LCS 240-626979/4	Lab Control Sample	Total/NA	Water	300.0	
240-210694-4 MS	EB-001-F-A3-20240903-01	Total/NA	Water	300.0	
240-210694-4 MSD	EB-001-F-A3-20240903-01	Total/NA	Water	300.0	

Analysis Batch: 627224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-6	2022-03-F-A3-20240904-01	Total/NA	Water	300.0	
MB 240-627224/4	Method Blank	Total/NA	Water	300.0	
LCS 240-627224/5	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 627328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-210694-1	2022-05-F-A3-20240903-01	Total/NA	Water	2320B-1997	
240-210694-2	2022-04-F-A3-20240903-01	Total/NA	Water	2320B-1997	
240-210694-3	FIELD BLANK-001-F-A3-20240903-01	Total/NA	Water	2320B-1997	
240-210694-4	EB-001-F-A3-20240903-01	Total/NA	Water	2320B-1997	
240-210694-5	2022-06-F-A3-20240904-01	Total/NA	Water	2320B-1997	
240-210694-6	2022-03-F-A3-20240904-01	Total/NA	Water	2320B-1997	
MB 240-627328/3	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-627328/4	Lab Control Sample	Total/NA	Water	2320B-1997	
240-210694-6 DU	2022-03-F-A3-20240904-01	Total/NA	Water	2320B-1997	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-05-F-A3-20240903-01
Lab Sample ID: 240-210694-1

Date Collected: 09/03/24 13:15
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6010D		1	626301	RKT	EET CLE	09/09/24 21:36
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:31
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 19:53
Total/NA	Analysis	300.0		5	626681	JMR	EET CLE	09/13/24 01:59
Total/NA	Analysis	300.0		50	626681	JMR	EET CLE	09/13/24 02:21
Total/NA	Analysis	SM 2540C		1	626222	TAV2	EET CLE	09/09/24 08:55

Client Sample ID: 2022-04-F-A3-20240903-01
Lab Sample ID: 240-210694-2

Date Collected: 09/03/24 14:45
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6010D		1	626301	RKT	EET CLE	09/09/24 21:40
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:33
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:00
Total/NA	Analysis	300.0		1	626681	JMR	EET CLE	09/13/24 02:43
Total/NA	Analysis	SM 2540C		1	626222	TAV2	EET CLE	09/09/24 08:55

Client Sample ID: FIELD BLANK-001-F-A3-20240903-01
Lab Sample ID: 240-210694-3

Date Collected: 09/03/24 15:00
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6010D		1	626301	RKT	EET CLE	09/09/24 21:45
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:36
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:09
Total/NA	Analysis	300.0		1	626681	JMR	EET CLE	09/13/24 03:26
Total/NA	Analysis	SM 2540C		1	626222	TAV2	EET CLE	09/09/24 08:55

Client Sample ID: EB-001-F-A3-20240903-01
Lab Sample ID: 240-210694-4

Date Collected: 09/03/24 15:15
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6010D		1	626301	RKT	EET CLE	09/09/24 21:49
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:38

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: EB-001-F-A3-20240903-01
Lab Sample ID: 240-210694-4
Date Collected: 09/03/24 15:15
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:13
Total/NA	Analysis	300.0		1	626979	JMR	EET CLE	09/13/24 14:03
Total/NA	Analysis	SM 2540C		1	626222	TAV2	EET CLE	09/09/24 08:55

Client Sample ID: 2022-06-F-A3-20240904-01
Lab Sample ID: 240-210694-5
Date Collected: 09/04/24 12:53
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6010D		1	626301	RKT	EET CLE	09/09/24 21:53
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:41
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:17
Total/NA	Analysis	300.0		1	626979	JMR	EET CLE	09/13/24 15:08
Total/NA	Analysis	SM 2540C		1	626222	TAV2	EET CLE	09/09/24 08:55

Client Sample ID: 2022-03-F-A3-20240904-01
Lab Sample ID: 240-210694-6
Date Collected: 09/04/24 11:41
Matrix: Water
Date Received: 09/06/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6010D		1	626301	RKT	EET CLE	09/09/24 21:58
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		1	626309	AJC	EET CLE	09/09/24 18:43
Total Recoverable	Prep	3005A			626069	XWS6	EET CLE	09/06/24 14:00
Total Recoverable	Analysis	6020B		10	626478	AJC	EET CLE	09/10/24 16:20
Total/NA	Analysis	2320B-1997		1	627328	JMR	EET CLE	09/13/24 20:23
Total/NA	Analysis	300.0		10	626979	JMR	EET CLE	09/13/24 15:51
Total/NA	Analysis	300.0		1000	627224	JMR	EET CLE	09/17/24 11:22
Total/NA	Analysis	SM 2540C		1	626222	TAV2	EET CLE	09/09/24 08:55

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-210694-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24 *
West Virginia DEP	State	210	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins Environment Testing America

Columbus

Client Information	Sampler: Robby Coste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 209	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-05-F-A3-20240903-01	9-3-24	1315	G	W	N		1	1	1		
2022-04-F-A3-20240903-01	9-3-24	1445	G	W	N		1	1	1		
Field Blank-001-F-A3-20240903-01	9-3-24	1500	G	W	N		1	1	1		
EB-001-F-A3-20240903-01	9-3-24	1515	G	W	N		1	1	1		
2022-06-F-A3-20240904-01	9-4-24	1253	G	W	N		1	1	1		
2022-03-F-A3-20240904-01	9-4-24	1141	G	W	N		1	1	1		

240-210694 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date: 9-5-24	Time:	Method of Shipment:			
Relinquished by: Robby Coste	Date/Time: 9-4-24 1045	Company: KEMRON	Received by: Ashley Deal	Date/Time: 9.5.24 12:30	Company: ETA		
Relinquished by: Ashley Deal	Date/Time: 9.5.24 1700	Company: ETA	Received by:	Date/Time: 9-6-24 800	Company: EC		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Cavin Point Site Name

Cooler unpacked by:

Cooler Received on 9-6-24 Opened on 9-6-24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC442471
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes No NA
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # . _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 22	1.7	1.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.5	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.0	0.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

9/6/2024

Login Container Summary Report

240-210694

9/18/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A3-20240903-01	240-210694-A-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20240903-01	240-210694-B-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20240903-01	240-210694-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-A3-20240903-01	240-210694-A-2	Plastic 250ml - unpreserved				
2022-04-F-A3-20240903-01	240-210694-B-2	Plastic 250ml - unpreserved				
2022-04-F-A3-20240903-01	240-210694-C-2	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-A3-20240903-01	240-210694-A-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A3-20240903-01	240-210694-B-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A3-20240903-01	240-210694-C-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A3-20240903-01	240-210694-A-4	Plastic 250ml - unpreserved				
EB-001-F-A3-20240903-01	240-210694-B-4	Plastic 250ml - unpreserved				
EB-001-F-A3-20240903-01	240-210694-C-4	Plastic 500ml - with Nitric Acid	<2			
2022-06-F-A3-20240904-01	240-210694-A-5	Plastic 250ml - unpreserved				
2022-06-F-A3-20240904-01	240-210694-B-5	Plastic 250ml - unpreserved				
2022-06-F-A3-20240904-01	240-210694-C-5	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A3-20240904-01	240-210694-A-6	Plastic 250ml - unpreserved				
2022-03-F-A3-20240904-01	240-210694-B-6	Plastic 250ml - unpreserved				
2022-03-F-A3-20240904-01	240-210694-C-6	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/15/2024 12:33:54 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-211152-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/15/2024 12:33:54 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211152-1
Project/Site: Federal CCR Wells

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211152-1 — Eurofins Cleveland

Job Narrative
240-211152-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 9/13/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8°C, 0.9°C and 3.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2016-10-F-20240910-01 (240-211152-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211152-1	2016-10-F-20240910-01	Water	09/10/24 11:59	09/13/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

Client Sample ID: 2016-10-F-20240910-01

Lab Sample ID: 240-211152-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	270		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.7	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	890		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.13	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	580000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	9.0		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.70	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	700		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	130000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	17		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	290000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	8600000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	50		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.5	J	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	47		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	13000		1000	130	mg/L	1000		300.0	Total/NA
Sulfate	110		50	17	mg/L	50		300.0	Total/NA
Total Dissolved Solids	21000		1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2016-10-F-20240910-01
Date Collected: 09/10/24 11:59
Date Received: 09/13/24 08:00

Lab Sample ID: 240-211152-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	270		100	57	ug/L		09/17/24 14:00	09/19/24 06:29	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.7	J	2.0	0.57	ug/L		09/17/24 14:00	09/18/24 14:15	1
Arsenic	2.6	J	5.0	0.75	ug/L		09/17/24 14:00	09/18/24 14:15	1
Barium	890		5.0	0.77	ug/L		09/17/24 14:00	09/18/24 14:15	1
Beryllium	ND		1.0	0.27	ug/L		09/17/24 14:00	09/18/24 14:15	1
Cadmium	0.13	J	1.0	0.077	ug/L		09/17/24 14:00	09/18/24 14:15	1
Calcium	580000		1000	250	ug/L		09/17/24 14:00	09/18/24 14:15	1
Chromium	9.0		5.0	1.2	ug/L		09/17/24 14:00	09/18/24 14:15	1
Cobalt	0.70	J	1.0	0.086	ug/L		09/17/24 14:00	09/18/24 14:15	1
Lead	ND		1.0	0.45	ug/L		09/17/24 14:00	09/18/24 14:15	1
Lithium	700		8.0	3.4	ug/L		09/17/24 14:00	09/18/24 14:15	1
Magnesium	130000		1000	61	ug/L		09/17/24 14:00	09/18/24 14:15	1
Molybdenum	17		5.0	1.1	ug/L		09/17/24 14:00	09/18/24 14:15	1
Potassium	290000		1000	220	ug/L		09/17/24 14:00	09/18/24 14:15	1
Selenium	2.4	J	5.0	0.89	ug/L		09/17/24 14:00	09/18/24 14:15	1
Sodium	8600000		10000	8800	ug/L		09/17/24 14:00	09/20/24 00:33	10
Thallium	ND		1.0	0.51	ug/L		09/17/24 14:00	09/18/24 14:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/17/24 14:00	09/18/24 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	50		5.0	2.6	mg/L			09/17/24 21:38	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	3.5	J	5.0	2.6	mg/L			09/17/24 21:38	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	47		5.0	2.6	mg/L			09/17/24 21:38	1
Chloride (EPA 300.0)	13000		1000	130	mg/L			09/18/24 12:25	1000
Fluoride (EPA 300.0)	ND		2.5	1.2	mg/L			09/18/24 12:07	50
Sulfate (EPA 300.0)	110		50	17	mg/L			09/18/24 12:07	50
Total Dissolved Solids (SM 2540C)	21000		1000	780	mg/L			09/17/24 16:38	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.05		0.243	0.305	1.00	0.0955	pCi/L	09/19/24 08:45	10/11/24 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*30 - 110*	*09/19/24 08:45*	*10/11/24 07:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	12.4		1.06	1.56	1.00	0.436	pCi/L	09/19/24 08:50	10/04/24 12:25	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

Client Sample ID: 2016-10-F-20240910-01
Date Collected: 09/10/24 11:59
Date Received: 09/13/24 08:00

Lab Sample ID: 240-211152-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*30 - 110*	*09/19/24 08:50*	*10/04/24 12:25*	*1*
Y Carrier	*74.0*		*30 - 110*	*09/19/24 08:50*	*10/04/24 12:25*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**14.4**		1.09	1.59	5.00	0.436	pCi/L		10/15/24 11:24	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211152-1	2016-10-F-20240910-01	110
LCS 160-680136/2-A	Lab Control Sample	105
MB 160-680136/1-A	Method Blank	101

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211152-1	2016-10-F-20240910-01	110	74.0
LCS 160-680137/2-A	Lab Control Sample	105	75.9
MB 160-680137/1-A	Method Blank	101	78.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-627295/1-A
Matrix: Water
Analysis Batch: 627605

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/17/24 14:00	09/19/24 06:21	1

Lab Sample ID: LCS 240-627295/2-A
Matrix: Water
Analysis Batch: 627605

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	921		ug/L		92	80 - 120		

Lab Sample ID: 240-211152-1 MS
Matrix: Water
Analysis Batch: 627605

Client Sample ID: 2016-10-F-20240910-01
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	270		1000	1220		ug/L		95	75 - 125		

Lab Sample ID: 240-211152-1 MSD
Matrix: Water
Analysis Batch: 627605

Client Sample ID: 2016-10-F-20240910-01
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	270		1000	1220		ug/L		95	75 - 125	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-627295/1-A
Matrix: Water
Analysis Batch: 627582

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/17/24 14:00	09/18/24 14:10	1
Arsenic	ND		5.0	0.75	ug/L		09/17/24 14:00	09/18/24 14:10	1
Barium	ND		5.0	0.77	ug/L		09/17/24 14:00	09/18/24 14:10	1
Beryllium	ND		1.0	0.27	ug/L		09/17/24 14:00	09/18/24 14:10	1
Cadmium	ND		1.0	0.077	ug/L		09/17/24 14:00	09/18/24 14:10	1
Calcium	ND		1000	250	ug/L		09/17/24 14:00	09/18/24 14:10	1
Chromium	ND		5.0	1.2	ug/L		09/17/24 14:00	09/18/24 14:10	1
Cobalt	ND		1.0	0.086	ug/L		09/17/24 14:00	09/18/24 14:10	1
Lead	ND		1.0	0.45	ug/L		09/17/24 14:00	09/18/24 14:10	1
Lithium	ND		8.0	3.4	ug/L		09/17/24 14:00	09/18/24 14:10	1
Magnesium	ND		1000	61	ug/L		09/17/24 14:00	09/18/24 14:10	1
Molybdenum	ND		5.0	1.1	ug/L		09/17/24 14:00	09/18/24 14:10	1
Potassium	ND		1000	220	ug/L		09/17/24 14:00	09/18/24 14:10	1
Selenium	ND		5.0	0.89	ug/L		09/17/24 14:00	09/18/24 14:10	1
Sodium	ND		1000	880	ug/L		09/17/24 14:00	09/18/24 14:10	1
Thallium	ND		1.0	0.51	ug/L		09/17/24 14:00	09/18/24 14:10	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-627295/3-A
Matrix: Water
Analysis Batch: 627582

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	960		ug/L		96	80 - 120
Barium	1000	990		ug/L		99	80 - 120
Beryllium	500	493		ug/L		99	80 - 120
Cadmium	500	491		ug/L		98	80 - 120
Calcium	25000	25900		ug/L		104	80 - 120
Chromium	500	501		ug/L		100	80 - 120
Cobalt	500	510		ug/L		102	80 - 120
Lead	500	555		ug/L		111	80 - 120
Lithium	500	449		ug/L		90	80 - 120
Magnesium	25000	25700		ug/L		103	80 - 120
Molybdenum	500	490		ug/L		98	80 - 120
Potassium	25000	25700		ug/L		103	80 - 120
Selenium	1000	971		ug/L		97	80 - 120
Sodium	25000	25800		ug/L		103	80 - 120
Thallium	1000	1100		ug/L		110	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-627300/1-A
Matrix: Water
Analysis Batch: 627545

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/17/24 14:00	09/18/24 10:51	1

Lab Sample ID: LCS 240-627300/2-A
Matrix: Water
Analysis Batch: 627545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627300

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.00		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-627519/30
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/17/24 19:03	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 19:03	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 19:03	1

Lab Sample ID: MB 240-627519/4
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/17/24 16:36	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-627519/4
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 16:36	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 16:36	1

Lab Sample ID: LCS 240-627519/29
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	274		mg/L		98	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-627396/3
Matrix: Water
Analysis Batch: 627396

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			09/18/24 10:01	1
Fluoride	ND		0.050	0.024	mg/L			09/18/24 10:01	1
Sulfate	ND		1.0	0.35	mg/L			09/18/24 10:01	1

Lab Sample ID: LCS 240-627396/4
Matrix: Water
Analysis Batch: 627396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.8		mg/L		100	90 - 110
Fluoride	2.50	2.45		mg/L		98	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-627384/1
Matrix: Water
Analysis Batch: 627384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/17/24 16:38	1

Lab Sample ID: LCS 240-627384/2
Matrix: Water
Analysis Batch: 627384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	689		mg/L		96	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-680136/1-A
Matrix: Water
Analysis Batch: 683125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680136

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1319		0.0779	0.0788	1.00	0.0988	pCi/L	09/19/24 08:45	10/11/24 07:40	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*09/19/24 08:45*	*10/11/24 07:40*	*1*

Lab Sample ID: LCS 160-680136/2-A
Matrix: Water
Analysis Batch: 683125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680136

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.028		0.866	1.00	0.0954	pCi/L	84	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*105*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-680137/1-A
Matrix: Water
Analysis Batch: 682222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680137

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6825		0.376	0.381	1.00	0.534	pCi/L	09/19/24 08:50	10/04/24 12:24	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*09/19/24 08:50*	*10/04/24 12:24*	*1*
Y Carrier	*78.9*		*30 - 110*	*09/19/24 08:50*	*10/04/24 12:24*	*1*

Lab Sample ID: LCS 160-680137/2-A
Matrix: Water
Analysis Batch: 682222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680137

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.46	9.013		1.26	1.00	0.569	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*105*		*30 - 110*
Y Carrier	*75.9*		*30 - 110*

Metals

Prep Batch: 627295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total Recoverable	Water	3005A	
MB 240-627295/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-627295/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-627295/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-211152-1 MS	2016-10-F-20240910-01	Total Recoverable	Water	3005A	
240-211152-1 MSD	2016-10-F-20240910-01	Total Recoverable	Water	3005A	

Prep Batch: 627300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	7470A	
MB 240-627300/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-627300/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 627545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	7470A	627300
MB 240-627300/1-A	Method Blank	Total/NA	Water	7470A	627300
LCS 240-627300/2-A	Lab Control Sample	Total/NA	Water	7470A	627300

Analysis Batch: 627582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total Recoverable	Water	6020B	627295
MB 240-627295/1-A	Method Blank	Total Recoverable	Water	6020B	627295
LCS 240-627295/3-A	Lab Control Sample	Total Recoverable	Water	6020B	627295

Analysis Batch: 627605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total Recoverable	Water	6010D	627295
MB 240-627295/1-A	Method Blank	Total Recoverable	Water	6010D	627295
LCS 240-627295/2-A	Lab Control Sample	Total Recoverable	Water	6010D	627295
240-211152-1 MS	2016-10-F-20240910-01	Total Recoverable	Water	6010D	627295
240-211152-1 MSD	2016-10-F-20240910-01	Total Recoverable	Water	6010D	627295

Analysis Batch: 627841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total Recoverable	Water	6020B	627295

General Chemistry

Analysis Batch: 627384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	SM 2540C	
MB 240-627384/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-627384/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 627396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	300.0	
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	300.0	
MB 240-627396/3	Method Blank	Total/NA	Water	300.0	
LCS 240-627396/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

General Chemistry

Analysis Batch: 627519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	2320B-1997	
MB 240-627519/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-627519/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-627519/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Rad

Prep Batch: 680136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	PrecSep-21	
MB 160-680136/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-680136/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 680137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211152-1	2016-10-F-20240910-01	Total/NA	Water	PrecSep_0	
MB 160-680137/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-680137/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211152-1

Client Sample ID: 2016-10-F-20240910-01
Date Collected: 09/10/24 11:59
Date Received: 09/13/24 08:00

Lab Sample ID: 240-211152-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627295	XWS6	EET CLE	09/17/24 14:00
Total Recoverable	Analysis	6010D		1	627605	RKT	EET CLE	09/19/24 06:29
Total Recoverable	Prep	3005A			627295	XWS6	EET CLE	09/17/24 14:00
Total Recoverable	Analysis	6020B		10	627841	AJC	EET CLE	09/20/24 00:33
Total Recoverable	Prep	3005A			627295	XWS6	EET CLE	09/17/24 14:00
Total Recoverable	Analysis	6020B		1	627582	AJC	EET CLE	09/18/24 14:15
Total/NA	Prep	7470A			627300	XWS6	EET CLE	09/17/24 14:00
Total/NA	Analysis	7470A		1	627545	S4FJ	EET CLE	09/18/24 10:54
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/17/24 21:38
Total/NA	Analysis	300.0		50	627396	JMR	EET CLE	09/18/24 12:07
Total/NA	Analysis	300.0		1000	627396	JMR	EET CLE	09/18/24 12:25
Total/NA	Analysis	SM 2540C		1	627384	TAV2	EET CLE	09/17/24 16:38
Total/NA	Prep	PrecSep-21			680136	BCE	EET SL	09/19/24 08:45
Total/NA	Analysis	9315		1	683125	FLC	EET SL	10/11/24 07:41
Total/NA	Prep	PrecSep_0			680137	BCE	EET SL	09/19/24 08:50
Total/NA	Analysis	9320		1	682222	SCB	EET SL	10/04/24 12:25
Total/NA	Analysis	Ra226_Ra228		1	683555	EMH	EET SL	10/15/24 11:24

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211152-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211152-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus
209

eurofins
Environment Testing

Client Information	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

240-211152 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2016-10-F-20240910-01	9-10-24	1159	G	Water	N		1	1	2	1	1		
~~2016-07-F-20240910-01~~	9-10-24		G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9-12-24 / 0945	KPRG	[signature] Yon Morley	09/12/2024 1213	Eurofins
2	Ashley Lead	9.12.24 1700	ETA	[signature]	09/13/24 0800	[signature]
3						

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client LIGHTSTONE GRAVIN Site Name

Cooler Received on 09/13/24 Opened on 09/13/24

Cooler unpacked by: JMOROSKO

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours. Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 20 (CF -0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 *Shippers' packing slip attached to the cooler(s)?*	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 *Were all preserved sample(s) at the correct pH upon receipt?*	Yes	No NA *pH Strip Lot# HC442471*
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	0.9	0.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	3.5	3.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
☐ See Temperature Excursion Form				

9/13/2024

Login Container Summary Report

240-211152

10/15/2024

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2016-10-F-20240910-01	240-211152-A-1	Plastic 60 mL - unpreserved				
2016-10-F-20240910-01	240-211152-B-1	Plastic 60 mL - unpreserved				
2016-10-F-20240910-01	240-211152-C-1	Plastic 500ml - unpreserved				
2016-10-F-20240910-01	240-211152-D-1	Plastic 500ml - with Nitric Acid	<2			
2016-10-F-20240910-01	240-211152-E-1	Plastic 1 liter - Nitric Acid	<2			
2016-10-F-20240910-01	240-211152-F-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190683.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211152-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/15/2024			Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2016-10-F-20240910-01 (240-211152-1)	9/10/24	11:59 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	MELISSA LOAR	9.16.24		Sierra Worthington	SEP 17 2024 0900	EATSR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/15/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211152-1

Login Number: 211152
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/18/24 08:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/15/2024 12:33:54 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-211155-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/15/2024 12:33:54 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211155-1
Project/Site: Federal CCR Wells

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211155-1 — Eurofins Cleveland

Job Narrative
240-211155-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 9/13/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.8°C, 0.9°C and 3.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 9801-F-20240911-01 (240-211155-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211155-1	9801-F-20240911-01	Water	09/11/24 13:01	09/13/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

Client Sample ID: 9801-F-20240911-01

Lab Sample ID: 240-211155-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.93	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	4800		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	190000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.3		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	120		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	60000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5100000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	140		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	140		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	7700		100	13	mg/L	100		300.0	Total/NA
Fluoride	0.77		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	3.9	J	10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	12000		100	78	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9801-F-20240911-01
Date Collected: 09/11/24 13:01
Date Received: 09/13/24 08:00

Lab Sample ID: 240-211155-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		09/17/24 14:00	09/19/24 07:17	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/17/24 14:00	09/18/24 14:45	1
Arsenic	0.93	J	5.0	0.75	ug/L		09/17/24 14:00	09/18/24 14:45	1
Barium	4800		5.0	0.77	ug/L		09/17/24 14:00	09/18/24 14:45	1
Beryllium	ND		1.0	0.27	ug/L		09/17/24 14:00	09/18/24 14:45	1
Cadmium	ND		1.0	0.077	ug/L		09/17/24 14:00	09/18/24 14:45	1
Calcium	190000		1000	250	ug/L		09/17/24 14:00	09/18/24 14:45	1
Chromium	1.9	J	5.0	1.2	ug/L		09/17/24 14:00	09/18/24 14:45	1
Cobalt	1.3		1.0	0.086	ug/L		09/17/24 14:00	09/18/24 14:45	1
Lead	ND		1.0	0.45	ug/L		09/17/24 14:00	09/18/24 14:45	1
Lithium	120		8.0	3.4	ug/L		09/17/24 14:00	09/18/24 14:45	1
Magnesium	60000		1000	61	ug/L		09/17/24 14:00	09/18/24 14:45	1
Molybdenum	4.4	J	5.0	1.1	ug/L		09/17/24 14:00	09/18/24 14:45	1
Potassium	9200		1000	220	ug/L		09/17/24 14:00	09/18/24 14:45	1
Selenium	ND		5.0	0.89	ug/L		09/17/24 14:00	09/18/24 14:45	1
Sodium	5100000		10000	8800	ug/L		09/17/24 14:00	09/20/24 00:46	10
Thallium	ND		1.0	0.51	ug/L		09/17/24 14:00	09/18/24 14:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/17/24 14:00	09/18/24 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	140		5.0	2.6	mg/L			09/18/24 00:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	140		5.0	2.6	mg/L			09/18/24 00:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 00:35	1
Chloride (EPA 300.0)	7700		100	13	mg/L			10/03/24 20:42	100
Fluoride (EPA 300.0)	0.77		0.50	0.24	mg/L			10/03/24 20:25	10
Sulfate (EPA 300.0)	3.9	J	10	3.5	mg/L			10/03/24 20:25	10
Total Dissolved Solids (SM 2540C)	12000		100	78	mg/L			09/18/24 08:26	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.32		0.259	0.333	1.00	0.0989	pCi/L	09/19/24 08:45	10/11/24 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*09/19/24 08:45*	*10/11/24 07:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	5.20		0.737	0.879	1.00	0.567	pCi/L	09/19/24 08:50	10/04/24 12:25	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

Client Sample ID: 9801-F-20240911-01
Date Collected: 09/11/24 13:01
Date Received: 09/13/24 08:00

Lab Sample ID: 240-211155-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*09/19/24 08:50*	*10/04/24 12:25*	*1*
Y Carrier	*77.0*		*30 - 110*	*09/19/24 08:50*	*10/04/24 12:25*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**7.53**		0.781	0.940	5.00	0.567	pCi/L		10/15/24 11:24	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211155-1	9801-F-20240911-01	109
LCS 160-680136/2-A	Lab Control Sample	105
MB 160-680136/1-A	Method Blank	101

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211155-1	9801-F-20240911-01	109	77.0
LCS 160-680137/2-A	Lab Control Sample	105	75.9
MB 160-680137/1-A	Method Blank	101	78.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-627295/1-A
Matrix: Water
Analysis Batch: 627605

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/17/24 14:00	09/19/24 06:21	1

Lab Sample ID: LCS 240-627295/2-A
Matrix: Water
Analysis Batch: 627605

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	921		ug/L		92	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-627295/1-A
Matrix: Water
Analysis Batch: 627582

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/17/24 14:00	09/18/24 14:10	1
Arsenic	ND		5.0	0.75	ug/L		09/17/24 14:00	09/18/24 14:10	1
Barium	ND		5.0	0.77	ug/L		09/17/24 14:00	09/18/24 14:10	1
Beryllium	ND		1.0	0.27	ug/L		09/17/24 14:00	09/18/24 14:10	1
Cadmium	ND		1.0	0.077	ug/L		09/17/24 14:00	09/18/24 14:10	1
Calcium	ND		1000	250	ug/L		09/17/24 14:00	09/18/24 14:10	1
Chromium	ND		5.0	1.2	ug/L		09/17/24 14:00	09/18/24 14:10	1
Cobalt	ND		1.0	0.086	ug/L		09/17/24 14:00	09/18/24 14:10	1
Lead	ND		1.0	0.45	ug/L		09/17/24 14:00	09/18/24 14:10	1
Lithium	ND		8.0	3.4	ug/L		09/17/24 14:00	09/18/24 14:10	1
Magnesium	ND		1000	61	ug/L		09/17/24 14:00	09/18/24 14:10	1
Molybdenum	ND		5.0	1.1	ug/L		09/17/24 14:00	09/18/24 14:10	1
Potassium	ND		1000	220	ug/L		09/17/24 14:00	09/18/24 14:10	1
Selenium	ND		5.0	0.89	ug/L		09/17/24 14:00	09/18/24 14:10	1
Sodium	ND		1000	880	ug/L		09/17/24 14:00	09/18/24 14:10	1
Thallium	ND		1.0	0.51	ug/L		09/17/24 14:00	09/18/24 14:10	1

Lab Sample ID: LCS 240-627295/3-A
Matrix: Water
Analysis Batch: 627582

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	960		ug/L		96	80 - 120
Barium	1000	990		ug/L		99	80 - 120
Beryllium	500	493		ug/L		99	80 - 120
Cadmium	500	491		ug/L		98	80 - 120
Calcium	25000	25900		ug/L		104	80 - 120
Chromium	500	501		ug/L		100	80 - 120
Cobalt	500	510		ug/L		102	80 - 120
Lead	500	555		ug/L		111	80 - 120
Lithium	500	449		ug/L		90	80 - 120
Magnesium	25000	25700		ug/L		103	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-627295/3-A
Matrix: Water
Analysis Batch: 627582

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	490		ug/L		98	80 - 120
Potassium	25000	25700		ug/L		103	80 - 120
Selenium	1000	971		ug/L		97	80 - 120
Sodium	25000	25800		ug/L		103	80 - 120
Thallium	1000	1100		ug/L		110	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-627300/1-A
Matrix: Water
Analysis Batch: 627545

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/17/24 14:00	09/18/24 10:51	1

Lab Sample ID: LCS 240-627300/2-A
Matrix: Water
Analysis Batch: 627545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627300

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.00		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-627519/56
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/17/24 21:53	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 21:53	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 21:53	1

Lab Sample ID: MB 240-627519/83
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/18/24 00:31	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 00:31	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 00:31	1

Lab Sample ID: LCS 240-627519/82
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	276		mg/L		99	86 - 123

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-211155-1 DU
Matrix: Water
Analysis Batch: 627519

Client Sample ID: 9801-F-20240911-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	140		139		mg/L		0.4	20
Bicarbonate Alkalinity as CaCO3	140		139		mg/L		0.4	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-629451/3
Matrix: Water
Analysis Batch: 629451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/03/24 13:02	1
Fluoride	ND		0.050	0.024	mg/L			10/03/24 13:02	1
Sulfate	ND		1.0	0.35	mg/L			10/03/24 13:02	1

Lab Sample ID: LCS 240-629451/4
Matrix: Water
Analysis Batch: 629451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.8		mg/L		100	90 - 110
Fluoride	2.50	2.43		mg/L		97	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-627442/1
Matrix: Water
Analysis Batch: 627442

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/18/24 08:26	1

Lab Sample ID: LCS 240-627442/2
Matrix: Water
Analysis Batch: 627442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	634		mg/L		88	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-680136/1-A
Matrix: Water
Analysis Batch: 683125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680136

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1319		0.0779	0.0788	1.00	0.0988	pCi/L	09/19/24 08:45	10/11/24 07:40	1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: MB 160-680136/1-A
Matrix: Water
Analysis Batch: 683125

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680136

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		30 - 110	09/19/24 08:45	10/11/24 07:40	1

Lab Sample ID: LCS 160-680136/2-A
Matrix: Water
Analysis Batch: 683125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680136

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.028		0.866	1.00	0.0954	pCi/L	84	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	105		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-680137/1-A
Matrix: Water
Analysis Batch: 682222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680137

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6825		0.376	0.381	1.00	0.534	pCi/L	09/19/24 08:50	10/04/24 12:24	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		30 - 110	09/19/24 08:50	10/04/24 12:24	1
Y Carrier	78.9		30 - 110	09/19/24 08:50	10/04/24 12:24	1

Lab Sample ID: LCS 160-680137/2-A
Matrix: Water
Analysis Batch: 682222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680137

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.46	9.013		1.26	1.00	0.569	pCi/L	107	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	105		30 - 110
Y Carrier	75.9		30 - 110

Metals

Prep Batch: 627295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total Recoverable	Water	3005A	
MB 240-627295/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-627295/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-627295/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 627300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	7470A	
MB 240-627300/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-627300/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 627545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	7470A	627300
MB 240-627300/1-A	Method Blank	Total/NA	Water	7470A	627300
LCS 240-627300/2-A	Lab Control Sample	Total/NA	Water	7470A	627300

Analysis Batch: 627582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total Recoverable	Water	6020B	627295
MB 240-627295/1-A	Method Blank	Total Recoverable	Water	6020B	627295
LCS 240-627295/3-A	Lab Control Sample	Total Recoverable	Water	6020B	627295

Analysis Batch: 627605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total Recoverable	Water	6010D	627295
MB 240-627295/1-A	Method Blank	Total Recoverable	Water	6010D	627295
LCS 240-627295/2-A	Lab Control Sample	Total Recoverable	Water	6010D	627295

Analysis Batch: 627841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total Recoverable	Water	6020B	627295

General Chemistry

Analysis Batch: 627442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	SM 2540C	
MB 240-627442/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-627442/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 627519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	2320B-1997	
MB 240-627519/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-627519/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-627519/82	Lab Control Sample	Total/NA	Water	2320B-1997	
240-211155-1 DU	9801-F-20240911-01	Total/NA	Water	2320B-1997	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

General Chemistry

Analysis Batch: 629451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	300.0	
240-211155-1	9801-F-20240911-01	Total/NA	Water	300.0	
MB 240-629451/3	Method Blank	Total/NA	Water	300.0	
LCS 240-629451/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 680136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	PrecSep-21	
MB 160-680136/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-680136/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 680137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211155-1	9801-F-20240911-01	Total/NA	Water	PrecSep_0	
MB 160-680137/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-680137/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211155-1

Client Sample ID: 9801-F-20240911-01

Date Collected: 09/11/24 13:01
Date Received: 09/13/24 08:00

Lab Sample ID: 240-211155-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627295	XWS6	EET CLE	09/17/24 14:00
Total Recoverable	Analysis	6010D		1	627605	RKT	EET CLE	09/19/24 07:17
Total Recoverable	Prep	3005A			627295	XWS6	EET CLE	09/17/24 14:00
Total Recoverable	Analysis	6020B		10	627841	AJC	EET CLE	09/20/24 00:46
Total Recoverable	Prep	3005A			627295	XWS6	EET CLE	09/17/24 14:00
Total Recoverable	Analysis	6020B		1	627582	AJC	EET CLE	09/18/24 14:45
Total/NA	Prep	7470A			627300	XWS6	EET CLE	09/17/24 14:00
Total/NA	Analysis	7470A		1	627545	S4FJ	EET CLE	09/18/24 11:11
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 00:35
Total/NA	Analysis	300.0		10	629451	JWW	EET CLE	10/03/24 20:25
Total/NA	Analysis	300.0		100	629451	JWW	EET CLE	10/03/24 20:42
Total/NA	Analysis	SM 2540C		1	627442	TAV2	EET CLE	09/18/24 08:26
Total/NA	Prep	PrecSep-21			680136	BCE	EET SL	09/19/24 08:45
Total/NA	Analysis	9315		1	683125	FLC	EET SL	10/11/24 07:41
Total/NA	Prep	PrecSep_0			680137	BCE	EET SL	09/19/24 08:50
Total/NA	Analysis	9320		1	682222	SCB	EET SL	10/04/24 12:25
Total/NA	Analysis	Ra226_Ra228		1	683555	EMH	EET SL	10/15/24 11:24

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211155-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211155-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus
209

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Environment Testing

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-372-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

240-211155 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
9801-F-20240911-C1	9-11-24	1301	G	Water	N	N	1	1	2	1	1	6	
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9-12-24 / 0945	FEMRO	Yara Mosley	09/12/2024 12:15 pm	Eurofins
2	Ashley Deal	9.12.24 1700	ETA	VITOROSKO	09/13/24 0800	FFTNC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Gavin Site Name _____ Cooler unpacked by: JMOROSKO

Cooler Received on 09/13/24 Opened on 09/13/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam Plastic Bag None Other _____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	0.9	0.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	3.5	3.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

9/13/2024

Login Container Summary Report

240-211155

10/15/2024

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9801-F-20240911-01	240-211155-A-1	Plastic 60 mL - unpreserved				
9801-F-20240911-01	240-211155-B-1	Plastic 60 mL - unpreserved				
9801-F-20240911-01	240-211155-C-1	Plastic 500ml - unpreserved				
9801-F-20240911-01	240-211155-D-1	Plastic 500ml - with Nitric Acid	<2			
9801-F-20240911-01	240-211155-E-1	Plastic 1 liter - Nitric Acid	<2			
9801-F-20240911-01	240-211155-F-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190683.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211155-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/15/2024			Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
9801-F-20240911-01 (240-211155-1)	9/11/24	13:01 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	MALISSA LOAR	9-16-24		Sara Worthington	SEP 17 2024 0900	ETAS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/15/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211155-1

Login Number: 211155
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/18/24 08:07 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/3/2024 8:33:42 PM

JOB DESCRIPTION

Federal CCR Wells - AppIII & IV combined

JOB NUMBER

240-211323-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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10/3/2024 8:33:42 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211323-1 Eurofins Cleveland

Job Narrative
240-211323-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 9/17/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211323-1	2022-O2-F-A34C-20240912-01	Water	09/12/24 11:50	09/17/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Client Sample ID: 2022-O2-F-A34C-20240912-01 **Lab Sample ID: 240-211323-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.6	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	5.4	B	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	670		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	1.9		1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.15	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	22000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	22		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.9	B	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	10		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	52		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	10000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	7200		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.9	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1500000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2100		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	140		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	2900		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - AppIII & IV combined

Job ID: 240-211323-1

Client Sample ID: 2022-O2-F-A34C-20240912-01
Date Collected: 09/12/24 11:50
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211323-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		09/18/24 14:00	09/19/24 11:26	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.6	J	2.0	0.57	ug/L		09/18/24 14:00	09/19/24 13:29	1
Arsenic	5.4	B	5.0	0.75	ug/L		09/18/24 14:00	09/19/24 13:29	1
Barium	670		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 13:29	1
Beryllium	1.9		1.0	0.27	ug/L		09/18/24 14:00	09/19/24 13:29	1
Cadmium	0.15	J	1.0	0.077	ug/L		09/18/24 14:00	09/19/24 13:29	1
Calcium	22000		1000	250	ug/L		09/18/24 14:00	09/19/24 13:29	1
Chromium	22		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 13:29	1
Cobalt	4.9	B	1.0	0.086	ug/L		09/18/24 14:00	09/19/24 13:29	1
Lead	10		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 13:29	1
Lithium	52		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 13:29	1
Magnesium	10000		1000	61	ug/L		09/18/24 14:00	09/19/24 13:29	1
Molybdenum	110		5.0	1.1	ug/L		09/18/24 14:00	09/19/24 13:29	1
Potassium	7200		1000	220	ug/L		09/18/24 14:00	09/19/24 13:29	1
Selenium	2.9	J	5.0	0.89	ug/L		09/18/24 14:00	09/19/24 13:29	1
Sodium	1500000		10000	8800	ug/L		09/18/24 14:00	09/20/24 23:32	10
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 13:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 09:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			09/18/24 00:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			09/18/24 00:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 00:45	1
Chloride (EPA 300.0)	2100		20	2.6	mg/L			10/02/24 06:32	20
Fluoride (EPA 300.0)	2.3		0.25	0.12	mg/L			10/02/24 05:34	5
Sulfate (EPA 300.0)	140		5.0	1.7	mg/L			10/02/24 05:34	5
Total Dissolved Solids (SM 2540C)	2900		50	39	mg/L			09/19/24 11:34	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - AppIII & IV combined

Job ID: 240-211323-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-627471/1-A
Matrix: Water
Analysis Batch: 627712

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/18/24 14:00	09/19/24 11:13	1

Lab Sample ID: LCS 240-627471/2-A
Matrix: Water
Analysis Batch: 627712

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627471

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	1010		ug/L		101	80 - 120		

Lab Sample ID: 240-211323-1 MS
Matrix: Water
Analysis Batch: 627712

Client Sample ID: 2022-O2-F-A34C-20240912-01
Prep Type: Total Recoverable
Prep Batch: 627471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	410		1000	1450		ug/L		105	75 - 125		

Lab Sample ID: 240-211323-1 MSD
Matrix: Water
Analysis Batch: 627712

Client Sample ID: 2022-O2-F-A34C-20240912-01
Prep Type: Total Recoverable
Prep Batch: 627471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	410		1000	1500		ug/L		109	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-627471/1-A
Matrix: Water
Analysis Batch: 627776

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/18/24 14:00	09/19/24 13:24	1
Arsenic	0.758	J	5.0	0.75	ug/L		09/18/24 14:00	09/19/24 13:24	1
Barium	ND		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 13:24	1
Beryllium	ND		1.0	0.27	ug/L		09/18/24 14:00	09/19/24 13:24	1
Cadmium	ND		1.0	0.077	ug/L		09/18/24 14:00	09/19/24 13:24	1
Calcium	ND		1000	250	ug/L		09/18/24 14:00	09/19/24 13:24	1
Chromium	ND		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 13:24	1
Cobalt	0.131	J	1.0	0.086	ug/L		09/18/24 14:00	09/19/24 13:24	1
Lead	ND		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 13:24	1
Lithium	ND		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 13:24	1
Magnesium	ND		1000	61	ug/L		09/18/24 14:00	09/19/24 13:24	1
Molybdenum	ND		5.0	1.1	ug/L		09/18/24 14:00	09/19/24 13:24	1
Potassium	ND		1000	220	ug/L		09/18/24 14:00	09/19/24 13:24	1
Selenium	ND		5.0	0.89	ug/L		09/18/24 14:00	09/19/24 13:24	1
Sodium	ND		1000	880	ug/L		09/18/24 14:00	09/19/24 13:24	1
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 13:24	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-627471/3-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 627776
Prep Batch: 627471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.2		ug/L		99	80 - 120
Arsenic	1000	1000		ug/L		100	80 - 120
Barium	1000	956		ug/L		96	80 - 120
Beryllium	500	482		ug/L		96	80 - 120
Cadmium	500	478		ug/L		96	80 - 120
Calcium	25000	24800		ug/L		99	80 - 120
Chromium	500	494		ug/L		99	80 - 120
Cobalt	500	499		ug/L		100	80 - 120
Lead	500	549		ug/L		110	80 - 120
Lithium	500	464		ug/L		93	80 - 120
Magnesium	25000	25000		ug/L		100	80 - 120
Molybdenum	500	492		ug/L		98	80 - 120
Potassium	25000	25000		ug/L		100	80 - 120
Selenium	1000	996		ug/L		100	80 - 120
Sodium	25000	24800		ug/L		99	80 - 120
Thallium	1000	1170		ug/L		117	80 - 120

Lab Sample ID: 240-211323-1 MS
Client Sample ID: 2022-O2-F-A34C-20240912-01
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 627776
Prep Batch: 627471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.6	J	100	92.8		ug/L		91	80 - 120
Arsenic	5.4	B	1000	1020		ug/L		102	80 - 120
Barium	670		1000	1640		ug/L		97	80 - 120
Beryllium	1.9		500	476		ug/L		95	80 - 120
Cadmium	0.15	J	500	455		ug/L		91	80 - 120
Calcium	22000		25000	46100		ug/L		97	80 - 120
Chromium	22		500	498		ug/L		95	80 - 120
Cobalt	4.9	B	500	513		ug/L		102	80 - 120
Lead	10		500	516		ug/L		101	80 - 120
Lithium	52		500	519		ug/L		93	80 - 120
Magnesium	10000		25000	34600		ug/L		99	80 - 120
Molybdenum	110		500	626		ug/L		103	80 - 120
Potassium	7200		25000	31500		ug/L		97	80 - 120
Selenium	2.9	J	1000	963		ug/L		96	80 - 120
Thallium	ND		1000	1090		ug/L		109	80 - 120

Lab Sample ID: 240-211323-1 MS
Client Sample ID: 2022-O2-F-A34C-20240912-01
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 627953
Prep Batch: 627471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	1500000		25000	1480000	4	ug/L		15	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-211323-1 MSD — **Client Sample ID: 2022-O2-F-A34C-20240912-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 627776 — **Prep Batch: 627471**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.6	J	100	96.3		ug/L		95	80 - 120	4	20
Arsenic	5.4	B	1000	1070		ug/L		106	80 - 120	4	20
Barium	670		1000	1680		ug/L		101	80 - 120	3	20
Beryllium	1.9		500	485		ug/L		97	80 - 120	2	20
Cadmium	0.15	J	500	467		ug/L		93	80 - 120	2	20
Calcium	22000		25000	47900		ug/L		104	80 - 120	4	20
Chromium	22		500	508		ug/L		97	80 - 120	2	20
Cobalt	4.9	B	500	531		ug/L		105	80 - 120	3	20
Lead	10		500	531		ug/L		104	80 - 120	3	20
Lithium	52		500	539		ug/L		97	80 - 120	4	20
Magnesium	10000		25000	35700		ug/L		103	80 - 120	3	20
Molybdenum	110		500	648		ug/L		107	80 - 120	3	20
Potassium	7200		25000	32500		ug/L		101	80 - 120	3	20
Selenium	2.9	J	1000	978		ug/L		97	80 - 120	1	20
Thallium	ND		1000	1120		ug/L		112	80 - 120	3	20

Lab Sample ID: 240-211323-1 MSD — **Client Sample ID: 2022-O2-F-A34C-20240912-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 627953 — **Prep Batch: 627471**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	1500000		25000	1650000	4	ug/L		692	80 - 120	11	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-627478/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627718 — **Prep Batch: 627478**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 09:46	1

Lab Sample ID: LCS 240-627478/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627718 — **Prep Batch: 627478**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.68		ug/L		94	80 - 120

Lab Sample ID: 240-211323-1 MS — **Client Sample ID: 2022-O2-F-A34C-20240912-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627718 — **Prep Batch: 627478**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	1.05		ug/L		105	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-211323-1 MSD
Client Sample ID: 2022-O2-F-A34C-20240912-01
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627718
Prep Batch: 627478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	1.04		ug/L		104	80 - 120	1	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-627519/56
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/17/24 21:53	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 21:53	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 21:53	1

Lab Sample ID: MB 240-627519/83
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627519

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/18/24 00:31	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 00:31	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 00:31	1

Lab Sample ID: LCS 240-627519/82
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627519

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	276		mg/L		99	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-628815/3
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 628815

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/02/24 02:41	1
Fluoride	ND		0.050	0.024	mg/L			10/02/24 02:41	1
Sulfate	ND		1.0	0.35	mg/L			10/02/24 02:41	1

Lab Sample ID: LCS 240-628815/4
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 628815

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.72		mg/L		109	90 - 110
Sulfate	50.0	52.3		mg/L		105	90 - 110

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-627683/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627683

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/19/24 11:34	1

Lab Sample ID: LCS 240-627683/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627683

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	693		mg/L		96	80 - 120		

Lab Sample ID: 240-211323-1 DU
Client Sample ID: 2022-O2-F-A34C-20240912-01
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 627683

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2900			3270		mg/L				12	20

Metals

Prep Batch: 627471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	3005A	
MB 240-627471/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-627471/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-627471/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	3005A	
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	3005A	
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	3005A	
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	3005A	

Prep Batch: 627478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total/NA	Water	7470A	
MB 240-627478/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-627478/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total/NA	Water	7470A	
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total/NA	Water	7470A	

Analysis Batch: 627712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6010D	627471
MB 240-627471/1-A	Method Blank	Total Recoverable	Water	6010D	627471
LCS 240-627471/2-A	Lab Control Sample	Total Recoverable	Water	6010D	627471
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6010D	627471
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6010D	627471

Analysis Batch: 627718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total/NA	Water	7470A	627478
MB 240-627478/1-A	Method Blank	Total/NA	Water	7470A	627478
LCS 240-627478/2-A	Lab Control Sample	Total/NA	Water	7470A	627478
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total/NA	Water	7470A	627478
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total/NA	Water	7470A	627478

Analysis Batch: 627776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6020B	627471
MB 240-627471/1-A	Method Blank	Total Recoverable	Water	6020B	627471
LCS 240-627471/3-A	Lab Control Sample	Total Recoverable	Water	6020B	627471
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6020B	627471
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6020B	627471

Analysis Batch: 627953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6020B	627471
240-211323-1 MS	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6020B	627471
240-211323-1 MSD	2022-O2-F-A34C-20240912-01	Total Recoverable	Water	6020B	627471

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

General Chemistry

Analysis Batch: 627519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total/NA	Water	2320B-1997	
MB 240-627519/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-627519/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-627519/82	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 627683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total/NA	Water	SM 2540C	
MB 240-627683/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-627683/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-211323-1 DU	2022-O2-F-A34C-20240912-01	Total/NA	Water	SM 2540C	

Analysis Batch: 628815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211323-1	2022-O2-F-A34C-20240912-01	Total/NA	Water	300.0	
240-211323-1	2022-O2-F-A34C-20240912-01	Total/NA	Water	300.0	
MB 240-628815/3	Method Blank	Total/NA	Water	300.0	
LCS 240-628815/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Client Sample ID: 2022-O2-F-A34C-20240912-01
Lab Sample ID: 240-211323-1
Date Collected: 09/12/24 11:50
Matrix: Water
Date Received: 09/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627471	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6010D		1	627712	KLC	EET CLE	09/19/24 11:26
Total Recoverable	Prep	3005A			627471	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		1	627776	AJC	EET CLE	09/19/24 13:29
Total Recoverable	Prep	3005A			627471	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		10	627953	AJC	EET CLE	09/20/24 23:32
Total/NA	Prep	7470A			627478	XWS6	EET CLE	09/18/24 14:00
Total/NA	Analysis	7470A		1	627718	S4FJ	EET CLE	09/19/24 09:50
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 00:45
Total/NA	Analysis	300.0		5	628815	JWW	EET CLE	10/02/24 05:34
Total/NA	Analysis	300.0		20	628815	JWW	EET CLE	10/02/24 06:32
Total/NA	Analysis	SM 2540C		1	627683	TAV2	EET CLE	09/19/24 11:34

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211323-1
Project/Site: Federal CCR Wells - AppIII & IV combined

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Columbus
209

Chain of Custody Record

3-3
3-2

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Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-97179-35520.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR - Appendix III and IV - Combined	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	300.0_28D - Fluoride (AppIV)/Cl, F, SO4 (AppIV)	2320B - Alkalinity	9315_Ra226, 9320_Ra228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-CZ-F-A34C-20240912-01	9-12-24	1150	G	W	N		1	1	1		3	Limited Volume

240-211323 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Casto	9-16-24/0945	Eurofins	Yon Mosley	09/16/2024 3:10pm	Eurofins
2	Yon Mosley	09/16/24 1730	Eurofins			
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °rc and Other Remarks:

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by:

Cooler Received on 9-17-24 Opened on 9-17-24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 22 (CF 0.1 °C) Observed Cooler Temp °C Corrected Cooler Temp °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC442471
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No NA
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No
17	Was a LL Hg or Me Hg trip blank present?	Yes No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

9/17/2024

Login Container Summary Report

240-211323

10/3/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-OZ-F-A34C-20240912-01	240-211323-A-1	Plastic 250ml - unpreserved				
2022-OZ-F-A34C-20240912-01	240-211323-B-1	Plastic 250ml - unpreserved				
2022-OZ-F-A34C-20240912-01	240-211323-C-1	Plastic 500ml - with Nitric Acid	<2			

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Columbus
209

Chain of Custody Record

3-3
3-2

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Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-97179-35520.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR - Appendix III and IV - Combined	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	300.0_28D - Fluoride (ApplV)/Cl, F, SO4 (ApplV)	2320B - Alkalinity	9315_Ra226, 9320_Ra228	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-CZ-F-A34C-20240912-01	9-12-24	1150	G	W	N		1	1	1		3	*Limited Volume*

240-211323 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Casto	9-16-24/0945	Lightstone	Yon Mosley	09/16/2024 3:10pm	Eurofins
Relinquished by: Yon Mosley	Date/Time: 09/16/24 1730	Company Eurofins	Received by:	Date/Time: 9-17-24 800	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °rc and Other Remarks:

Ver: 01/16/2019

10/3/2024

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Site Name

Cooler Received on 9-17-24 Opened on 9-17-24

Cooler unpacked by:

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours. Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 27 (CF -0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4 Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC442471
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

9/17/2024

Login Container Summary Report

240-211323

10/3/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-OZ-F-A34C-20240912-01	240-211323-A-1	Plastic 250ml - unpreserved				
2022-OZ-F-A34C-20240912-01	240-211323-B-1	Plastic 250ml - unpreserved				
2022-OZ-F-A34C-20240912-01	240-211323-C-1	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/15/2024 5:43:50 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-211324-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/15/2024 5:43:50 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211324-1
Project/Site: Federal CCR Wells

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211324-1 Eurofins Cleveland

Job Narrative
240-211324-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/17/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.0°C, 1.7°C, 1.9°C and 2.2°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 batch 680330
The detection goal was not met for the following sample due to the reduced volume used in prep attributed to the presence of matrix interferences: 2022-06-F-20240913-01 (240-211324-5). Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211324-1
Project/Site: Federal CCR Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211324-1	2022-05-F-20240912-01	Water	09/12/24 13:35	09/17/24 08:00
240-211324-2	2022-04-F-20240912-01	Water	09/12/24 15:21	09/17/24 08:00
240-211324-3	DUP-001-F-20240912-01	Water	09/12/24 00:00	09/17/24 08:00
240-211324-4	96152-F-20240913-01	Water	09/13/24 11:14	09/17/24 08:00
240-211324-5	2022-06-F-20240913-01	Water	09/13/24 15:55	09/17/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Client Sample ID: 2022-05-F-20240912-01 — Lab Sample ID: 240-211324-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.9	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	5.7		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2500		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.45	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.20	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	75000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.68	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	75		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	31		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5700		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	3.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	3100000		10000	8800	ug/L	10		6020B	Total Recoverable
Thallium	0.63	J	1.0	0.51	ug/L	1		6020B	Total Recoverable
Total Alkalinity	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	4800		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	0.98		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	36		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5300		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-04-F-20240912-01 — Lab Sample ID: 240-211324-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	790		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	91		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.31	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.086	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.30	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	23		8.0	3.4	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-04-F-20240912-01 (Continued)

Lab Sample ID: 240-211324-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	37000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.5	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	79000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	35		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.087		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	88		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	640		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-20240912-01

Lab Sample ID: 240-211324-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	790		100	57	ug/L	1		6010D	Total Recoverable
Barium	93		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	120000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.26	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	23		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	38000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	4100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	81000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	510		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	35		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.081		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	88		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	670		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96152-F-20240913-01

Lab Sample ID: 240-211324-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	13		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	730		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	46000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	2.7		1.0	0.086	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96152-F-20240913-01 (Continued)
Lab Sample ID: 240-211324-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	86		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	16000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2200000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	530		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3200		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	0.65		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	65		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	4300		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-06-F-20240913-01
Lab Sample ID: 240-211324-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	340		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	62000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.9		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	1.5		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	16		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	240000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	520		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	130		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.83		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	29		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	770		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-05-F-20240912-01

Date Collected: 09/12/24 13:35
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		09/18/24 14:00	09/19/24 22:04	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.9	J	2.0	0.57	ug/L		09/18/24 14:00	09/19/24 15:40	1
Arsenic	5.7		5.0	0.75	ug/L		09/18/24 14:00	09/19/24 15:40	1
Barium	2500		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 15:40	1
Beryllium	0.45	J	1.0	0.27	ug/L		09/18/24 14:00	09/19/24 15:40	1
Cadmium	0.20	J	1.0	0.077	ug/L		09/18/24 14:00	09/19/24 15:40	1
Calcium	75000		1000	250	ug/L		09/18/24 14:00	09/19/24 15:40	1
Chromium	ND		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 15:40	1
Cobalt	0.68	J	1.0	0.086	ug/L		09/18/24 14:00	09/19/24 15:40	1
Lead	ND		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 15:40	1
Lithium	75		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 15:40	1
Magnesium	25000		1000	61	ug/L		09/18/24 14:00	09/19/24 15:40	1
Molybdenum	31		5.0	1.1	ug/L		09/18/24 14:00	09/19/24 15:40	1
Potassium	5700		1000	220	ug/L		09/18/24 14:00	09/19/24 15:40	1
Selenium	3.4	J	5.0	0.89	ug/L		09/18/24 14:00	09/19/24 15:40	1
Sodium	3100000		10000	8800	ug/L		09/18/24 14:00	09/20/24 23:02	10
Thallium	0.63	J	1.0	0.51	ug/L		09/18/24 14:00	09/19/24 15:40	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	200		5.0	2.6	mg/L			09/18/24 03:08	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	200		5.0	2.6	mg/L			09/18/24 03:08	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 03:08	1
Chloride (EPA 300.0)	4800		50	6.4	mg/L			10/03/24 21:50	50
Fluoride (EPA 300.0)	0.98		0.25	0.12	mg/L			10/03/24 20:59	5
Sulfate (EPA 300.0)	36		5.0	1.7	mg/L			10/03/24 20:59	5
Total Dissolved Solids (SM 2540C)	5300		50	39	mg/L			09/19/24 11:34	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.02		0.198	0.218	1.00	0.129	pCi/L	09/20/24 08:39	10/14/24 23:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.1*		*30 - 110*	*09/20/24 08:39*	*10/14/24 23:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.28		0.443	0.458	1.00	0.540	pCi/L	09/20/24 08:50	10/09/24 12:04	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Client Sample ID: 2022-05-F-20240912-01
Date Collected: 09/12/24 13:35
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.1*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:04*	*1*
Y Carrier	*85.6*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:04*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.30**		0.485	0.507	5.00	0.540	pCi/L		10/15/24 16:34	1

Client Sample ID: 2022-04-F-20240912-01
Date Collected: 09/12/24 15:21
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	790		100	57	ug/L		09/18/24 14:00	09/19/24 22:33	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/18/24 14:00	09/19/24 16:07	1
Arsenic	1.3	J	5.0	0.75	ug/L		09/18/24 14:00	09/19/24 16:07	1
Barium	91		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 16:07	1
Beryllium	0.31	J	1.0	0.27	ug/L		09/18/24 14:00	09/19/24 16:07	1
Cadmium	0.086	J	1.0	0.077	ug/L		09/18/24 14:00	09/19/24 16:07	1
Calcium	120000		1000	250	ug/L		09/18/24 14:00	09/19/24 16:07	1
Chromium	ND		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 16:07	1
Cobalt	0.30	J	1.0	0.086	ug/L		09/18/24 14:00	09/19/24 16:07	1
Lead	ND		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 16:07	1
Lithium	23		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 16:07	1
Magnesium	37000		1000	61	ug/L		09/18/24 14:00	09/19/24 16:07	1
Molybdenum	1.6	J	5.0	1.1	ug/L		09/18/24 14:00	09/19/24 16:07	1
Potassium	4000		1000	220	ug/L		09/18/24 14:00	09/19/24 16:07	1
Selenium	2.5	J	5.0	0.89	ug/L		09/18/24 14:00	09/19/24 16:07	1
Sodium	79000		1000	880	ug/L		09/18/24 14:00	09/19/24 16:07	1
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 16:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 12:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	510		5.0	2.6	mg/L			09/18/24 03:26	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	510		5.0	2.6	mg/L			09/18/24 03:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 03:26	1
Chloride (EPA 300.0)	35		1.0	0.13	mg/L			10/03/24 22:41	1
Fluoride (EPA 300.0)	0.087		0.050	0.024	mg/L			10/03/24 22:41	1
Sulfate (EPA 300.0)	88		1.0	0.35	mg/L			10/03/24 22:41	1
Total Dissolved Solids (SM 2540C)	640		10	7.8	mg/L			09/19/24 11:34	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.147	U	0.112	0.113	1.00	0.167	pCi/L	09/20/24 08:39	10/14/24 23:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*30 - 110*	*09/20/24 08:39*	*10/14/24 23:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.162	U	0.398	0.398	1.00	0.699	pCi/L	09/20/24 08:50	10/09/24 12:05	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Client Sample ID: 2022-04-F-20240912-01
Date Collected: 09/12/24 15:21
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:05*	*1*
Y Carrier	*75.9*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.309	U	0.413	0.414	5.00	0.699	pCi/L		10/15/24 16:34	1

Client Sample ID: DUP-001-F-20240912-01
Date Collected: 09/12/24 00:00
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**790**		100	57	ug/L		09/18/24 14:00	09/19/24 22:38	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/18/24 14:00	09/19/24 16:10	1
Arsenic	ND		5.0	0.75	ug/L		09/18/24 14:00	09/19/24 16:10	1
Barium	**93**		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 16:10	1
Beryllium	ND		1.0	0.27	ug/L		09/18/24 14:00	09/19/24 16:10	1
Cadmium	ND		1.0	0.077	ug/L		09/18/24 14:00	09/19/24 16:10	1
Calcium	**120000**		1000	250	ug/L		09/18/24 14:00	09/19/24 16:10	1
Chromium	ND		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 16:10	1
Cobalt	**0.26**	**J**	1.0	0.086	ug/L		09/18/24 14:00	09/19/24 16:10	1
Lead	ND		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 16:10	1
Lithium	**23**		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 16:10	1
Magnesium	**38000**		1000	61	ug/L		09/18/24 14:00	09/19/24 16:10	1
Molybdenum	ND		5.0	1.1	ug/L		09/18/24 14:00	09/19/24 16:10	1
Potassium	**4100**		1000	220	ug/L		09/18/24 14:00	09/19/24 16:10	1
Selenium	ND		5.0	0.89	ug/L		09/18/24 14:00	09/19/24 16:10	1
Sodium	**81000**		1000	880	ug/L		09/18/24 14:00	09/19/24 16:10	1
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 16:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 12:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**510**		5.0	2.6	mg/L			09/18/24 02:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**510**		5.0	2.6	mg/L			09/18/24 02:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 02:16	1
Chloride (EPA 300.0)	**35**		1.0	0.13	mg/L			10/03/24 23:49	1
Fluoride (EPA 300.0)	**0.081**		0.050	0.024	mg/L			10/03/24 23:49	1
Sulfate (EPA 300.0)	**88**		1.0	0.35	mg/L			10/03/24 23:49	1
Total Dissolved Solids (SM 2540C)	**670**		10	7.8	mg/L			09/19/24 11:34	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.139	U	0.109	0.110	1.00	0.161	pCi/L	09/20/24 08:39	10/14/24 23:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*30 - 110*	*09/20/24 08:39*	*10/14/24 23:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.138	U	0.385	0.385	1.00	0.687	pCi/L	09/20/24 08:50	10/09/24 12:05	1

Client Sample ID: DUP-001-F-20240912-01
Date Collected: 09/12/24 00:00
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:05*	*1*
Y Carrier	*74.8*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.278	U	0.400	0.400	5.00	0.687	pCi/L		10/15/24 16:34	1

Client Sample ID: 96152-F-20240913-01
Date Collected: 09/13/24 11:14
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	460		100	57	ug/L		09/18/24 14:00	09/19/24 22:42	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/18/24 14:00	09/19/24 16:12	1
Arsenic	13		5.0	0.75	ug/L		09/18/24 14:00	09/19/24 16:12	1
Barium	730		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 16:12	1
Beryllium	ND		1.0	0.27	ug/L		09/18/24 14:00	09/19/24 16:12	1
Cadmium	ND		1.0	0.077	ug/L		09/18/24 14:00	09/19/24 16:12	1
Calcium	46000		1000	250	ug/L		09/18/24 14:00	09/19/24 16:12	1
Chromium	ND		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 16:12	1
Cobalt	2.7		1.0	0.086	ug/L		09/18/24 14:00	09/19/24 16:12	1
Lead	ND		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 16:12	1
Lithium	86		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 16:12	1
Magnesium	16000		1000	61	ug/L		09/18/24 14:00	09/19/24 16:12	1
Molybdenum	4.2	J	5.0	1.1	ug/L		09/18/24 14:00	09/19/24 16:12	1
Potassium	8800		1000	220	ug/L		09/18/24 14:00	09/19/24 16:12	1
Selenium	ND		5.0	0.89	ug/L		09/18/24 14:00	09/19/24 16:12	1
Sodium	2200000		10000	8800	ug/L		09/18/24 14:00	09/20/24 23:25	10
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 16:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 12:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	530		5.0	2.6	mg/L			09/18/24 02:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	530		5.0	2.6	mg/L			09/18/24 02:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 02:52	1
Chloride (EPA 300.0)	3200		25	3.2	mg/L			10/04/24 00:40	25
Fluoride (EPA 300.0)	0.65		0.25	0.12	mg/L			10/04/24 00:23	5
Sulfate (EPA 300.0)	65		5.0	1.7	mg/L			10/04/24 00:23	5
Total Dissolved Solids (SM 2540C)	4300		50	39	mg/L			09/20/24 08:35	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.28		0.219	0.247	1.00	0.118	pCi/L	09/20/24 08:39	10/14/24 23:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*30 - 110*	*09/20/24 08:39*	*10/14/24 23:50*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.55		0.555	0.602	1.00	0.532	pCi/L	09/20/24 08:50	10/09/24 12:05	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Client Sample ID: 96152-F-20240913-01
Date Collected: 09/13/24 11:14
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-4
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	92.1		30 - 110	09/20/24 08:50	10/09/24 12:05	1
Y Carrier	85.2		30 - 110	09/20/24 08:50	10/09/24 12:05	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.84		0.597	0.651	5.00	0.532	pCi/L		10/15/24 16:34	1

Client Sample ID: 2022-06-F-20240913-01
Date Collected: 09/13/24 15:55
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-5
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	130		100	57	ug/L		09/18/24 14:00	09/19/24 22:46	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/18/24 14:00	09/19/24 16:15	1
Arsenic	2.7	J	5.0	0.75	ug/L		09/18/24 14:00	09/19/24 16:15	1
Barium	340		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 16:15	1
Beryllium	ND		1.0	0.27	ug/L		09/18/24 14:00	09/19/24 16:15	1
Cadmium	ND		1.0	0.077	ug/L		09/18/24 14:00	09/19/24 16:15	1
Calcium	62000		1000	250	ug/L		09/18/24 14:00	09/19/24 16:15	1
Chromium	4.9	J	5.0	1.2	ug/L		09/18/24 14:00	09/19/24 16:15	1
Cobalt	1.9		1.0	0.086	ug/L		09/18/24 14:00	09/19/24 16:15	1
Lead	1.5		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 16:15	1
Lithium	16		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 16:15	1
Magnesium	13000		1000	61	ug/L		09/18/24 14:00	09/19/24 16:15	1
Molybdenum	11		5.0	1.1	ug/L		09/18/24 14:00	09/19/24 16:15	1
Potassium	2800		1000	220	ug/L		09/18/24 14:00	09/19/24 16:15	1
Selenium	ND		5.0	0.89	ug/L		09/18/24 14:00	09/19/24 16:15	1
Sodium	240000		1000	880	ug/L		09/18/24 14:00	09/19/24 16:15	1
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 16:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 12:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	520		5.0	2.6	mg/L			09/18/24 02:30	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	520		5.0	2.6	mg/L			09/18/24 02:30	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/18/24 02:30	1
Chloride (EPA 300.0)	130		1.0	0.13	mg/L			10/04/24 00:57	1
Fluoride (EPA 300.0)	0.83		0.050	0.024	mg/L			10/04/24 00:57	1
Sulfate (EPA 300.0)	29		1.0	0.35	mg/L			10/04/24 00:57	1
Total Dissolved Solids (SM 2540C)	770		10	7.8	mg/L			09/20/24 08:35	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.832		0.264	0.275	1.00	0.239	pCi/L	09/20/24 08:39	10/14/24 23:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*30 - 110*	*09/20/24 08:39*	*10/14/24 23:50*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.21	G	0.762	0.770	1.00	1.13	pCi/L	09/20/24 08:50	10/09/24 12:05	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Client Sample ID: 2022-06-F-20240913-01
Date Collected: 09/13/24 15:55
Date Received: 09/17/24 08:00

Lab Sample ID: 240-211324-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:05*	*1*
Y Carrier	*84.9*		*30 - 110*	*09/20/24 08:50*	*10/09/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.04**		0.806	0.818	5.00	1.13	pCi/L		10/15/24 16:34	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211324-1	2022-05-F-20240912-01	90.1
240-211324-1 MS	2022-05-F-20240912-01	98.8
240-211324-1 MSD	2022-05-F-20240912-01	100
240-211324-2	2022-04-F-20240912-01	84.9
240-211324-3	DUP-001-F-20240912-01	78.9
240-211324-4	96152-F-20240913-01	92.1
240-211324-5	2022-06-F-20240913-01	89.6
LCS 160-680329/2-A	Lab Control Sample	92.1
MB 160-680329/1-A	Method Blank	88.6

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211324-1	2022-05-F-20240912-01	90.1	85.6
240-211324-1 MS	2022-05-F-20240912-01	98.8	79.6
240-211324-1 MSD	2022-05-F-20240912-01	100	84.9
240-211324-2	2022-04-F-20240912-01	84.9	75.9
240-211324-3	DUP-001-F-20240912-01	78.9	74.8
240-211324-4	96152-F-20240913-01	92.1	85.2
240-211324-5	2022-06-F-20240913-01	89.6	84.9
LCS 160-680330/2-A	Lab Control Sample	92.1	79.6
MB 160-680330/1-A	Method Blank	88.6	81.1

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-627495/1-A
Matrix: Water
Analysis Batch: 627770

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/18/24 14:00	09/19/24 21:55	1

Lab Sample ID: LCS 240-627495/2-A
Matrix: Water
Analysis Batch: 627770

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	1010		ug/L		101	80 - 120		

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 627770

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	370		1000	1280		ug/L		91	75 - 125		

Lab Sample ID: 240-211324-1 MSD
Matrix: Water
Analysis Batch: 627770

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	370		1000	1190		ug/L		82	75 - 125	8	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-627495/1-A
Matrix: Water
Analysis Batch: 627776

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/18/24 14:00	09/19/24 15:35	1
Arsenic	ND		5.0	0.75	ug/L		09/18/24 14:00	09/19/24 15:35	1
Barium	ND		5.0	0.77	ug/L		09/18/24 14:00	09/19/24 15:35	1
Beryllium	ND		1.0	0.27	ug/L		09/18/24 14:00	09/19/24 15:35	1
Cadmium	ND		1.0	0.077	ug/L		09/18/24 14:00	09/19/24 15:35	1
Calcium	ND		1000	250	ug/L		09/18/24 14:00	09/19/24 15:35	1
Chromium	ND		5.0	1.2	ug/L		09/18/24 14:00	09/19/24 15:35	1
Cobalt	ND		1.0	0.086	ug/L		09/18/24 14:00	09/19/24 15:35	1
Lead	ND		1.0	0.45	ug/L		09/18/24 14:00	09/19/24 15:35	1
Lithium	ND		8.0	3.4	ug/L		09/18/24 14:00	09/19/24 15:35	1
Magnesium	ND		1000	61	ug/L		09/18/24 14:00	09/19/24 15:35	1
Molybdenum	ND		5.0	1.1	ug/L		09/18/24 14:00	09/19/24 15:35	1
Potassium	ND		1000	220	ug/L		09/18/24 14:00	09/19/24 15:35	1
Selenium	ND		5.0	0.89	ug/L		09/18/24 14:00	09/19/24 15:35	1
Sodium	ND		1000	880	ug/L		09/18/24 14:00	09/19/24 15:35	1
Thallium	ND		1.0	0.51	ug/L		09/18/24 14:00	09/19/24 15:35	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-627495/3-A
Matrix: Water
Analysis Batch: 627776

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.4		ug/L		98	80 - 120
Arsenic	1000	1020		ug/L		102	80 - 120
Barium	1000	968		ug/L		97	80 - 120
Beryllium	500	477		ug/L		95	80 - 120
Cadmium	500	475		ug/L		95	80 - 120
Calcium	25000	25300		ug/L		101	80 - 120
Chromium	500	498		ug/L		100	80 - 120
Cobalt	500	504		ug/L		101	80 - 120
Lead	500	546		ug/L		109	80 - 120
Lithium	500	472		ug/L		94	80 - 120
Magnesium	25000	25500		ug/L		102	80 - 120
Molybdenum	500	500		ug/L		100	80 - 120
Potassium	25000	25800		ug/L		103	80 - 120
Selenium	1000	1010		ug/L		101	80 - 120
Sodium	25000	25100		ug/L		101	80 - 120
Thallium	1000	1170		ug/L		117	80 - 120

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 627776

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	1.9	J	100	94.0		ug/L		92	80 - 120
Arsenic	5.7		1000	1040		ug/L		103	80 - 120
Barium	2500		1000	3500		ug/L		105	80 - 120
Beryllium	0.45	J	500	452		ug/L		90	80 - 120
Cadmium	0.20	J	500	431		ug/L		86	80 - 120
Calcium	75000		25000	100000		ug/L		100	80 - 120
Chromium	ND		500	455		ug/L		91	80 - 120
Cobalt	0.68	J	500	507		ug/L		101	80 - 120
Lead	ND		500	477		ug/L		95	80 - 120
Lithium	75		500	521		ug/L		89	80 - 120
Magnesium	25000		25000	48800		ug/L		96	80 - 120
Molybdenum	31		500	543		ug/L		102	80 - 120
Potassium	5700		25000	29500		ug/L		95	80 - 120
Selenium	3.4	J	1000	925		ug/L		92	80 - 120
Thallium	0.63	J	1000	1040		ug/L		104	80 - 120

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 627953

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total Recoverable
Prep Batch: 627495

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	3100000		25000	2940000	4	ug/L		-516	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-211324-1 MSD — **Client Sample ID: 2022-05-F-20240912-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 627776 — **Prep Batch: 627495**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	1.9	J	100	94.8		ug/L		93	80 - 120	1	20
Arsenic	5.7		1000	1040		ug/L		104	80 - 120	1	20
Barium	2500		1000	3480		ug/L		102	80 - 120	1	20
Beryllium	0.45	J	500	438		ug/L		88	80 - 120	3	20
Cadmium	0.20	J	500	428		ug/L		86	80 - 120	1	20
Calcium	75000		25000	99300		ug/L		96	80 - 120	1	20
Chromium	ND		500	452		ug/L		90	80 - 120	1	20
Cobalt	0.68	J	500	504		ug/L		101	80 - 120	1	20
Lead	ND		500	484		ug/L		97	80 - 120	2	20
Lithium	75		500	509		ug/L		87	80 - 120	2	20
Magnesium	25000		25000	47900		ug/L		92	80 - 120	2	20
Molybdenum	31		500	542		ug/L		102	80 - 120	0	20
Potassium	5700		25000	29400		ug/L		95	80 - 120	0	20
Selenium	3.4	J	1000	927		ug/L		92	80 - 120	0	20
Thallium	0.63	J	1000	1040		ug/L		104	80 - 120	0	20

Lab Sample ID: 240-211324-1 MSD — **Client Sample ID: 2022-05-F-20240912-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 627953 — **Prep Batch: 627495**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	3100000		25000	2840000	4	ug/L		-925	80 - 120	4	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-627498/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627718 — **Prep Batch: 627498**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/18/24 14:00	09/19/24 12:00	1

Lab Sample ID: LCS 240-627498/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627718 — **Prep Batch: 627498**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.86		ug/L		97	80 - 120

Lab Sample ID: 240-211324-1 MS — **Client Sample ID: 2022-05-F-20240912-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 627718 — **Prep Batch: 627498**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.977		ug/L		98	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-211324-1 MSD
Matrix: Water
Analysis Batch: 627718

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA
Prep Batch: 627498

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.995		ug/L		99	80 - 120	2	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-627519/109
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/18/24 02:48	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 02:48	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 02:48	1

Lab Sample ID: MB 240-627519/56
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/17/24 21:53	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 21:53	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/17/24 21:53	1

Lab Sample ID: MB 240-627519/83
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/18/24 00:31	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 00:31	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/18/24 00:31	1

Lab Sample ID: LCS 240-627519/108
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	277		mg/L		99	86 - 123

Lab Sample ID: LCS 240-627519/82
Matrix: Water
Analysis Batch: 627519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	276		mg/L		99	86 - 123

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-211324-4 DU
Matrix: Water
Analysis Batch: 627519

Client Sample ID: 96152-F-20240913-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	530		525		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	530		525		mg/L		0.2	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-629451/3
Matrix: Water
Analysis Batch: 629451

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/03/24 13:02	1
Fluoride	ND		0.050	0.024	mg/L			10/03/24 13:02	1
Sulfate	ND		1.0	0.35	mg/L			10/03/24 13:02	1

Lab Sample ID: LCS 240-629451/4
Matrix: Water
Analysis Batch: 629451

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.8		mg/L		100	90 - 110
Fluoride	2.50	2.43		mg/L		97	90 - 110
Sulfate	50.0	50.0		mg/L		100	90 - 110

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 629451

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.98		12.5	12.9		mg/L		95	80 - 120
Sulfate	36		250	291		mg/L		102	80 - 120

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 629451

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	4800		2500	7210		mg/L		95	80 - 120

Lab Sample ID: 240-211324-1 MSD
Matrix: Water
Analysis Batch: 629451

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.98		12.5	12.8		mg/L		95	80 - 120	0	15
Sulfate	36		250	288		mg/L		101	80 - 120	1	15

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-211324-1 MSD
Matrix: Water
Analysis Batch: 629451

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4800		2500	7240		mg/L		96	80 - 120	0	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-627683/1
Matrix: Water
Analysis Batch: 627683

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/19/24 11:34	1

Lab Sample ID: LCS 240-627683/2
Matrix: Water
Analysis Batch: 627683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	693		mg/L		96	80 - 120

Lab Sample ID: 240-211324-2 DU
Matrix: Water
Analysis Batch: 627683

Client Sample ID: 2022-04-F-20240912-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	640		624		mg/L		3	20

Lab Sample ID: MB 240-627790/1
Matrix: Water
Analysis Batch: 627790

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/20/24 08:35	1

Lab Sample ID: LCS 240-627790/2
Matrix: Water
Analysis Batch: 627790

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	639		mg/L		89	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-680329/1-A
Matrix: Water
Analysis Batch: 683516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680329

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.05139	U	0.0300	0.0304	1.00	0.113	pCi/L	09/20/24 08:39	10/14/24 23:45	1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: MB 160-680329/1-A
Matrix: Water
Analysis Batch: 683516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680329

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110	09/20/24 08:39	10/14/24 23:45	1

Lab Sample ID: LCS 160-680329/2-A
Matrix: Water
Analysis Batch: 683516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680329

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.255		1.01	1.00	0.128	pCi/L	97	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.1		30 - 110

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 683517

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA
Prep Batch: 680329

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	1.02		9.57	9.188		0.993	1.00	0.127	pCi/L	85	60 - 140		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	98.8		30 - 110

Lab Sample ID: 240-211324-1 MSD
Matrix: Water
Analysis Batch: 683517

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA
Prep Batch: 680329

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	1.02		9.62	8.834		0.957	1.00	0.119	pCi/L	81	60 - 140	0.18	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	100		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-680330/1-A
Matrix: Water
Analysis Batch: 682854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680330

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1488	U	0.339	0.340	1.00	0.595	pCi/L	09/20/24 08:50	10/09/24 12:09	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		30 - 110	09/20/24 08:50	10/09/24 12:09	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-680330/1-A
Matrix: Water
Analysis Batch: 682854

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680330

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	81.1		30 - 110	09/20/24 08:50	10/09/24 12:09	1

Lab Sample ID: LCS 160-680330/2-A
Matrix: Water
Analysis Batch: 682854

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680330

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.44	9.654		1.36	1.00	0.656	pCi/L	114	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.1		30 - 110
Y Carrier	79.6		30 - 110

Lab Sample ID: 240-211324-1 MS
Matrix: Water
Analysis Batch: 682853

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA
Prep Batch: 680330

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	1.28		8.43	9.749		1.31	1.00	0.521	pCi/L	100	60 - 140		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	98.8		30 - 110
Y Carrier	79.6		30 - 110

Lab Sample ID: 240-211324-1 MSD
Matrix: Water
Analysis Batch: 682853

Client Sample ID: 2022-05-F-20240912-01
Prep Type: Total/NA
Prep Batch: 680330

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	1.28		8.48	8.894		1.21	1.00	0.498	pCi/L	90	60 - 140	0.34	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	100		30 - 110
Y Carrier	84.9		30 - 110

Metals

Prep Batch: 627495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total Recoverable	Water	3005A	
240-211324-2	2022-04-F-20240912-01	Total Recoverable	Water	3005A	
240-211324-3	DUP-001-F-20240912-01	Total Recoverable	Water	3005A	
240-211324-4	96152-F-20240913-01	Total Recoverable	Water	3005A	
240-211324-5	2022-06-F-20240913-01	Total Recoverable	Water	3005A	
MB 240-627495/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-627495/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-627495/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-211324-1 MS	2022-05-F-20240912-01	Total Recoverable	Water	3005A	
240-211324-1 MS	2022-05-F-20240912-01	Total Recoverable	Water	3005A	
240-211324-1 MSD	2022-05-F-20240912-01	Total Recoverable	Water	3005A	
240-211324-1 MSD	2022-05-F-20240912-01	Total Recoverable	Water	3005A	

Prep Batch: 627498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	7470A	
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	7470A	
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	7470A	
240-211324-4	96152-F-20240913-01	Total/NA	Water	7470A	
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	7470A	
MB 240-627498/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-627498/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-211324-1 MS	2022-05-F-20240912-01	Total/NA	Water	7470A	
240-211324-1 MSD	2022-05-F-20240912-01	Total/NA	Water	7470A	

Analysis Batch: 627718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	7470A	627498
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	7470A	627498
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	7470A	627498
240-211324-4	96152-F-20240913-01	Total/NA	Water	7470A	627498
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	7470A	627498
MB 240-627498/1-A	Method Blank	Total/NA	Water	7470A	627498
LCS 240-627498/2-A	Lab Control Sample	Total/NA	Water	7470A	627498
240-211324-1 MS	2022-05-F-20240912-01	Total/NA	Water	7470A	627498
240-211324-1 MSD	2022-05-F-20240912-01	Total/NA	Water	7470A	627498

Analysis Batch: 627770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total Recoverable	Water	6010D	627495
240-211324-2	2022-04-F-20240912-01	Total Recoverable	Water	6010D	627495
240-211324-3	DUP-001-F-20240912-01	Total Recoverable	Water	6010D	627495
240-211324-4	96152-F-20240913-01	Total Recoverable	Water	6010D	627495
240-211324-5	2022-06-F-20240913-01	Total Recoverable	Water	6010D	627495
MB 240-627495/1-A	Method Blank	Total Recoverable	Water	6010D	627495
LCS 240-627495/2-A	Lab Control Sample	Total Recoverable	Water	6010D	627495
240-211324-1 MS	2022-05-F-20240912-01	Total Recoverable	Water	6010D	627495
240-211324-1 MSD	2022-05-F-20240912-01	Total Recoverable	Water	6010D	627495

Metals

Analysis Batch: 627776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total Recoverable	Water	6020B	627495
240-211324-2	2022-04-F-20240912-01	Total Recoverable	Water	6020B	627495
240-211324-3	DUP-001-F-20240912-01	Total Recoverable	Water	6020B	627495
240-211324-4	96152-F-20240913-01	Total Recoverable	Water	6020B	627495
240-211324-5	2022-06-F-20240913-01	Total Recoverable	Water	6020B	627495
MB 240-627495/1-A	Method Blank	Total Recoverable	Water	6020B	627495
LCS 240-627495/3-A	Lab Control Sample	Total Recoverable	Water	6020B	627495
240-211324-1 MS	2022-05-F-20240912-01	Total Recoverable	Water	6020B	627495
240-211324-1 MSD	2022-05-F-20240912-01	Total Recoverable	Water	6020B	627495

Analysis Batch: 627953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total Recoverable	Water	6020B	627495
240-211324-4	96152-F-20240913-01	Total Recoverable	Water	6020B	627495
240-211324-1 MS	2022-05-F-20240912-01	Total Recoverable	Water	6020B	627495
240-211324-1 MSD	2022-05-F-20240912-01	Total Recoverable	Water	6020B	627495

General Chemistry

Analysis Batch: 627519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	2320B-1997	
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	2320B-1997	
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	2320B-1997	
240-211324-4	96152-F-20240913-01	Total/NA	Water	2320B-1997	
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	2320B-1997	
MB 240-627519/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-627519/56	Method Blank	Total/NA	Water	2320B-1997	
MB 240-627519/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-627519/108	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-627519/82	Lab Control Sample	Total/NA	Water	2320B-1997	
240-211324-4 DU	96152-F-20240913-01	Total/NA	Water	2320B-1997	

Analysis Batch: 627683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	SM 2540C	
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	SM 2540C	
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	SM 2540C	
MB 240-627683/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-627683/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-211324-2 DU	2022-04-F-20240912-01	Total/NA	Water	SM 2540C	

Analysis Batch: 627790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-4	96152-F-20240913-01	Total/NA	Water	SM 2540C	
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	SM 2540C	
MB 240-627790/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-627790/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 629451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	300.0	
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	300.0	
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	300.0	
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	300.0	
240-211324-4	96152-F-20240913-01	Total/NA	Water	300.0	
240-211324-4	96152-F-20240913-01	Total/NA	Water	300.0	
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	300.0	
MB 240-629451/3	Method Blank	Total/NA	Water	300.0	
LCS 240-629451/4	Lab Control Sample	Total/NA	Water	300.0	
240-211324-1 MS	2022-05-F-20240912-01	Total/NA	Water	300.0	
240-211324-1 MS	2022-05-F-20240912-01	Total/NA	Water	300.0	
240-211324-1 MSD	2022-05-F-20240912-01	Total/NA	Water	300.0	
240-211324-1 MSD	2022-05-F-20240912-01	Total/NA	Water	300.0	

Rad

Prep Batch: 680329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	PrecSep-21	
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	PrecSep-21	
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	PrecSep-21	
240-211324-4	96152-F-20240913-01	Total/NA	Water	PrecSep-21	
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	PrecSep-21	
MB 160-680329/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-680329/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-211324-1 MS	2022-05-F-20240912-01	Total/NA	Water	PrecSep-21	
240-211324-1 MSD	2022-05-F-20240912-01	Total/NA	Water	PrecSep-21	

Prep Batch: 680330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211324-1	2022-05-F-20240912-01	Total/NA	Water	PrecSep_0	
240-211324-2	2022-04-F-20240912-01	Total/NA	Water	PrecSep_0	
240-211324-3	DUP-001-F-20240912-01	Total/NA	Water	PrecSep_0	
240-211324-4	96152-F-20240913-01	Total/NA	Water	PrecSep_0	
240-211324-5	2022-06-F-20240913-01	Total/NA	Water	PrecSep_0	
MB 160-680330/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-680330/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-211324-1 MS	2022-05-F-20240912-01	Total/NA	Water	PrecSep_0	
240-211324-1 MSD	2022-05-F-20240912-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211324-1

Client Sample ID: 2022-05-F-20240912-01

Lab Sample ID: 240-211324-1

Date Collected: 09/12/24 13:35
Date Received: 09/17/24 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6010D		1	627770	RKT	EET CLE	09/19/24 22:04
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		1	627776	AJC	EET CLE	09/19/24 15:40
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		10	627953	AJC	EET CLE	09/20/24 23:02
Total/NA	Prep	7470A			627498	XWS6	EET CLE	09/18/24 14:00
Total/NA	Analysis	7470A		1	627718	S4FJ	EET CLE	09/19/24 12:03
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 03:08
Total/NA	Analysis	300.0		5	629451	JWW	EET CLE	10/03/24 20:59
Total/NA	Analysis	300.0		50	629451	JWW	EET CLE	10/03/24 21:50
Total/NA	Analysis	SM 2540C		1	627683	TAV2	EET CLE	09/19/24 11:34
Total/NA	Prep	PrecSep-21			680329	BCE	EET SL	09/20/24 08:39
Total/NA	Analysis	9315		1	683517	FLC	EET SL	10/14/24 23:46
Total/NA	Prep	PrecSep_0			680330	BCE	EET SL	09/20/24 08:50
Total/NA	Analysis	9320		1	682853	FLC	EET SL	10/09/24 12:04
Total/NA	Analysis	Ra226_Ra228		1	683720	SCB	EET SL	10/15/24 16:34

Client Sample ID: 2022-04-F-20240912-01

Lab Sample ID: 240-211324-2

Date Collected: 09/12/24 15:21
Date Received: 09/17/24 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6010D		1	627770	RKT	EET CLE	09/19/24 22:33
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		1	627776	AJC	EET CLE	09/19/24 16:07
Total/NA	Prep	7470A			627498	XWS6	EET CLE	09/18/24 14:00
Total/NA	Analysis	7470A		1	627718	S4FJ	EET CLE	09/19/24 12:17
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 03:26
Total/NA	Analysis	300.0		1	629451	JWW	EET CLE	10/03/24 22:41
Total/NA	Analysis	SM 2540C		1	627683	TAV2	EET CLE	09/19/24 11:34
Total/NA	Prep	PrecSep-21			680329	BCE	EET SL	09/20/24 08:39
Total/NA	Analysis	9315		1	683517	FLC	EET SL	10/14/24 23:46
Total/NA	Prep	PrecSep_0			680330	BCE	EET SL	09/20/24 08:50
Total/NA	Analysis	9320		1	682853	FLC	EET SL	10/09/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	683720	SCB	EET SL	10/15/24 16:34

Client Sample ID: DUP-001-F-20240912-01

Lab Sample ID: 240-211324-3

Date Collected: 09/12/24 00:00

Matrix: Water

Date Received: 09/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6010D		1	627770	RKT	EET CLE	09/19/24 22:38
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		1	627776	AJC	EET CLE	09/19/24 16:10
Total/NA	Prep	7470A			627498	XWS6	EET CLE	09/18/24 14:00
Total/NA	Analysis	7470A		1	627718	S4FJ	EET CLE	09/19/24 12:18
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 02:16
Total/NA	Analysis	300.0		1	629451	JWW	EET CLE	10/03/24 23:49
Total/NA	Analysis	SM 2540C		1	627683	TAV2	EET CLE	09/19/24 11:34
Total/NA	Prep	PrecSep-21			680329	BCE	EET SL	09/20/24 08:39
Total/NA	Analysis	9315		1	683517	FLC	EET SL	10/14/24 23:46
Total/NA	Prep	PrecSep_0			680330	BCE	EET SL	09/20/24 08:50
Total/NA	Analysis	9320		1	682853	FLC	EET SL	10/09/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	683720	SCB	EET SL	10/15/24 16:34

Client Sample ID: 96152-F-20240913-01

Lab Sample ID: 240-211324-4

Date Collected: 09/13/24 11:14

Matrix: Water

Date Received: 09/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6010D		1	627770	RKT	EET CLE	09/19/24 22:42
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		1	627776	AJC	EET CLE	09/19/24 16:12
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		10	627953	AJC	EET CLE	09/20/24 23:25
Total/NA	Prep	7470A			627498	XWS6	EET CLE	09/18/24 14:00
Total/NA	Analysis	7470A		1	627718	S4FJ	EET CLE	09/19/24 12:20
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 02:52
Total/NA	Analysis	300.0		5	629451	JWW	EET CLE	10/04/24 00:23
Total/NA	Analysis	300.0		25	629451	JWW	EET CLE	10/04/24 00:40
Total/NA	Analysis	SM 2540C		1	627790	TAV2	EET CLE	09/20/24 08:35
Total/NA	Prep	PrecSep-21			680329	BCE	EET SL	09/20/24 08:39
Total/NA	Analysis	9315		1	683384	SCB	EET SL	10/14/24 23:50
Total/NA	Prep	PrecSep_0			680330	BCE	EET SL	09/20/24 08:50
Total/NA	Analysis	9320		1	682853	FLC	EET SL	10/09/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	683720	SCB	EET SL	10/15/24 16:34

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211324-1
Project/Site: Federal CCR Wells

Client Sample ID: 2022-06-F-20240913-01
Lab Sample ID: 240-211324-5

Date Collected: 09/13/24 15:55
Matrix: Water
Date Received: 09/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6010D		1	627770	RKT	EET CLE	09/19/24 22:46
Total Recoverable	Prep	3005A			627495	XWS6	EET CLE	09/18/24 14:00
Total Recoverable	Analysis	6020B		1	627776	AJC	EET CLE	09/19/24 16:15
Total/NA	Prep	7470A			627498	XWS6	EET CLE	09/18/24 14:00
Total/NA	Analysis	7470A		1	627718	S4FJ	EET CLE	09/19/24 12:22
Total/NA	Analysis	2320B-1997		1	627519	JWW	EET CLE	09/18/24 02:30
Total/NA	Analysis	300.0		1	629451	JWW	EET CLE	10/04/24 00:57
Total/NA	Analysis	SM 2540C		1	627790	TAV2	EET CLE	09/20/24 08:35
Total/NA	Prep	PrecSep-21			680329	BCE	EET SL	09/20/24 08:39
Total/NA	Analysis	9315		1	683384	SCB	EET SL	10/14/24 23:50
Total/NA	Prep	PrecSep_0			680330	BCE	EET SL	09/20/24 08:50
Total/NA	Analysis	9320		1	682853	FLC	EET SL	10/09/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	683720	SCB	EET SL	10/15/24 16:34

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211324-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211324-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Columbus
209

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: Bobby Castle	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2022-05-F-20240912-01	9-12-24	1335	G	Water	N		1	1	2	1	1	6	
2022-05-F-20240912-MS-01	9-12-24	1335	G	Water	N	Y	1	1	2	1	1	6	
2022-05-F-20240912-MSD-01	9-12-24	1335	G	Water	N	Y	1	1	2	1	1	6	
2022-04-F-20240912-01	9-12-24	1521	G	Water	N		1	1	2	1	1	6	
DUP-001-F-20240912-01	9-12-24	—	G	Water	N		1	1	2	1	1	6	
96152-F-20240913-01	9-13-24	1114	G	Water	N		1	1	2	1	1	6	
2022-06-F-20240913-01	9-13-24	1555	G	Water	N		1	1	2	1	1	6	
				Water									
				Water									
				Water									
				Water									

240-211324 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Castle	9-16-24 / 0945	KEMRON	Von Mosley	09/16/2024 3:10pm	Eurofins
Relinquished by: Von Mosley	Date/Time: 09/16/24 1730	Company Eurofins	Received by:	Date/Time: 9-17-24 800	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by:

Cooler Received on 9-17-24 Opened on 9-17-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4 Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y) (Y) (Y)	
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	(No) NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved _____ Preservative(s) added/Lot number(s). _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 32	1.1	1.0	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	2.0	1.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	2.3	2.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.8	1.7	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	

9/17/2024

Login Container Summary Report

240-211324

10/15/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-20240912-01	240-211324-A-1	Plastic 60 mL - unpreserved				
2022-05-F-20240912-01	240-211324-A-1 MS	Plastic 60 mL - unpreserved				
2022-05-F-20240912-01	240-211324-A-1 MSD	Plastic 60 mL - unpreserved				
2022-05-F-20240912-01	240-211324-B-1	Plastic 60 mL - unpreserved				
2022-05-F-20240912-01	240-211324-B-1 MS	Plastic 60 mL - unpreserved				
2022-05-F-20240912-01	240-211324-B-1 MSD	Plastic 60 mL - unpreserved				
2022-05-F-20240912-01	240-211324-C-1	Plastic 500ml - unpreserved				
2022-05-F-20240912-01	240-211324-C-1 MS	Plastic 500ml - unpreserved				
2022-05-F-20240912-01	240-211324-C-1 MSD	Plastic 500ml - unpreserved				
2022-05-F-20240912-01	240-211324-D-1	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-D-1 MS	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-D-1 MSD	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-E-1 MS	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-F-1	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-F-1 MS	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-20240912-01	240-211324-F-1 MSD	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-20240912-01	240-211324-A-2	Plastic 60 mL - unpreserved				
2022-04-F-20240912-01	240-211324-B-2	Plastic 60 mL - unpreserved				
2022-04-F-20240912-01	240-211324-C-2	Plastic 500ml - unpreserved				
2022-04-F-20240912-01	240-211324-D-2	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-20240912-01	240-211324-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-20240912-01	240-211324-F-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-20240912-01	240-211324-A-3	Plastic 60 mL - unpreserved				
DUP-001-F-20240912-01	240-211324-B-3	Plastic 60 mL - unpreserved				
DUP-001-F-20240912-01	240-211324-C-3	Plastic 500ml - unpreserved				
DUP-001-F-20240912-01	240-211324-D-3	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-20240912-01	240-211324-E-3	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-20240912-01	240-211324-F-3	Plastic 1 liter - Nitric Acid	<2			
96152-F-20240913-01	240-211324-A-4	Plastic 60 mL - unpreserved				
96152-F-20240913-01	240-211324-B-4	Plastic 60 mL - unpreserved				
96152-F-20240913-01	240-211324-C-4	Plastic 500ml - unpreserved				

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
96152-F-20240913-01	240-211324-D-4	Plastic 500ml - with Nitric Acid	<2			
96152-F-20240913-01	240-211324-E-4	Plastic 1 liter - Nitric Acid	<2			
96152-F-20240913-01	240-211324-F-4	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-20240913-01	240-211324-A-5	Plastic 60 mL - unpreserved				
2022-06-F-20240913-01	240-211324-B-5	Plastic 60 mL - unpreserved				
2022-06-F-20240913-01	240-211324-C-5	Plastic 500ml - unpreserved				
2022-06-F-20240913-01	240-211324-D-5	Plastic 500ml - with Nitric Acid	<2			
2022-06-F-20240913-01	240-211324-E-5	Plastic 1 liter - Nitric Acid	<2			
2022-06-F-20240913-01	240-211324-F-5	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190767.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211324-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/17/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-05-F-20240912-01 (240-211324-1)	9/12/24	13:35 Eastern	G	Water			X	X	X	2	
2022-05-F-20240912-01 (240-211324-1MS)	9/12/24	13:35 Eastern	G	Water			X	X		2	
2022-05-F-20240912-01 (240-211324-1MSD)	9/12/24	13:35 Eastern	G	Water			X	X		2	
2022-04-F-20240912-01 (240-211324-2)	9/12/24	15:21 Eastern	G	Water			X	X	X	2	
DUP-001-F-20240912-01 (240-211324-3)	9/12/24	Eastern	G	Water			X	X	X	2	
96152-F-20240913-01 (240-211324-4)	9/13/24	11:14 Eastern	G	Water			X	X	X	2	
2022-06-F-20240913-01 (240-211324-5)	9/13/24	15:55 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: JESSICA RIGDON	Date/Time: 9-17-24 1500	Company: EETNC	Received by: Sima Worthington	Date/Time: SEP 18 2024 0930	Company: ETA312
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/15/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211324-1

Login Number: 211324
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/18/24 01:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/21/2024 8:43:46 AM

JOB DESCRIPTION

Gavin CCR Wells

JOB NUMBER

240-211562-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/21/2024 8:43:46 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Qualifiers

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211562-1 Eurofins Cleveland

Job Narrative
240-211562-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/20/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.8°C, 1.2°C, 1.8°C and 9.9°C.

Metals
Method 6020B - Total Recoverable: The initial calibration verification low (ICVL) associated with batch 240-628139 recovered above the upper control limit for Thallium. The samples associated with this ICVL were below the reporting limit for the affected analytes; therefore, the data have been reported. 2016-05-F-20240916-01 (240-211562-1), FIELD BLANK-001-F-20240916-01 (240-211562-2), EB-001-F-20240916-01 (240-211562-3), 96158-F-20240917-01 (240-211562-4) and 96157-F-20240917-01 (240-211562-5)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211562-1
Project/Site: Gavin CCR Wells

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211562-1	2016-05-F-20240916-01	Water	09/16/24 11:25	09/20/24 08:00
240-211562-2	FIELD BLANK-001-F-20240916-01	Water	09/16/24 14:45	09/20/24 08:00
240-211562-3	EB-001-F-20240916-01	Water	09/16/24 14:50	09/20/24 08:00
240-211562-4	96158-F-20240917-01	Water	09/17/24 10:41	09/20/24 08:00
240-211562-5	96157-F-20240917-01	Water	09/17/24 11:45	09/20/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: 2016-05-F-20240916-01 — Lab Sample ID: 240-211562-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	87	J	100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.64	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	7.9		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	46		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.21	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	42000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	3.0	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.6		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	4.6		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	13		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	18000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	2.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2600		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	3.8	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	74000		1000	880	ug/L	1		6020B	Total Recoverable
Thallium	0.69	J ^1+	1.0	0.51	ug/L	1		6020B	Total Recoverable
Total Alkalinity	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	15		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.22		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	130		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	340		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELD BLANK-001-F-20240916-01 — Lab Sample ID: 240-211562-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.83	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Cadmium	0.10	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Selenium	1.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable

Client Sample ID: EB-001-F-20240916-01 — Lab Sample ID: 240-211562-3

No Detections.

Client Sample ID: 96158-F-20240917-01 — Lab Sample ID: 240-211562-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 96158-F-20240917-01 (Continued)

Lab Sample ID: 240-211562-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	370		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	65000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	7.0		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.6		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.93	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	38		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3600		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	670000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1100		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	1.1		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	41		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1900		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 96157-F-20240917-01

Lab Sample ID: 240-211562-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	130		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	54		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	70000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	2.8	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.65	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	8.9		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	6.0		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	320000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	480		10	1.3	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96157-F-20240917-01 (Continued)
Lab Sample ID: 240-211562-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.92		0.050	0.024	mg/L	1		300.0	Total/NA
Total Dissolved Solids	960		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: 2016-05-F-20240916-01

Date Collected: 09/16/24 11:25
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	87	J	100	57	ug/L		09/20/24 14:00	09/23/24 21:26	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.64	J	2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:33	1
Arsenic	7.9		5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:33	1
Barium	46		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:33	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:33	1
Cadmium	0.21	J	1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:33	1
Calcium	42000		1000	250	ug/L		09/20/24 14:00	09/23/24 17:33	1
Chromium	3.0	J	5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:33	1
Cobalt	2.6		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:33	1
Lead	4.6		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:33	1
Lithium	13		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:33	1
Magnesium	18000		1000	61	ug/L		09/20/24 14:00	09/23/24 17:33	1
Molybdenum	2.4	J	5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:33	1
Potassium	2600		1000	220	ug/L		09/20/24 14:00	09/23/24 17:33	1
Selenium	3.8	J	5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:33	1
Sodium	74000		1000	880	ug/L		09/20/24 14:00	09/23/24 17:33	1
Thallium	0.69	J ^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:33	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	200		5.0	2.6	mg/L			09/23/24 21:22	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	200		5.0	2.6	mg/L			09/23/24 21:22	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:22	1
Chloride (EPA 300.0)	15		1.0	0.13	mg/L			10/09/24 04:36	1
Fluoride (EPA 300.0)	0.22		0.050	0.024	mg/L			10/09/24 04:36	1
Sulfate (EPA 300.0)	130		1.0	0.35	mg/L			10/09/24 04:36	1
Total Dissolved Solids (SM 2540C)	340		10	7.8	mg/L			09/23/24 08:30	1

Client Sample ID: FIELD BLANK-001-F-20240916-01
Date Collected: 09/16/24 14:45
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/24 14:00	09/23/24 21:30	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:35	1
Arsenic	**0.83**	**J**	5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:35	1
Barium	ND		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:35	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:35	1
Cadmium	**0.10**	**J**	1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:35	1
Calcium	ND		1000	250	ug/L		09/20/24 14:00	09/23/24 17:35	1
Chromium	ND		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:35	1
Cobalt	ND		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:35	1
Lead	ND		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:35	1
Lithium	ND		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:35	1
Magnesium	ND		1000	61	ug/L		09/20/24 14:00	09/23/24 17:35	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:35	1
Potassium	ND		1000	220	ug/L		09/20/24 14:00	09/23/24 17:35	1
Selenium	**1.4**	**J**	5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:35	1
Sodium	ND		1000	880	ug/L		09/20/24 14:00	09/23/24 17:35	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 20:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 20:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 20:18	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/09/24 05:36	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/09/24 05:36	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/09/24 05:36	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/23/24 08:30	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0447	U	0.0637	0.0638	1.00	0.149	pCi/L	09/24/24 08:50	10/16/24 23:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.246	U	0.339	0.340	1.00	0.569	pCi/L	09/24/24 08:53	10/11/24 12:05	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: FIELD BLANK-001-F-20240916-01
Date Collected: 09/16/24 14:45
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:05*	*1*
Y Carrier	*79.6*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.201	U	0.345	0.346	5.00	0.569	pCi/L		10/21/24 07:33	1

Client Sample ID: EB-001-F-20240916-01
Date Collected: 09/16/24 14:50
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/24 14:00	09/23/24 21:35	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:38	1
Arsenic	ND		5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:38	1
Barium	ND		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:38	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:38	1
Cadmium	ND		1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:38	1
Calcium	ND		1000	250	ug/L		09/20/24 14:00	09/23/24 17:38	1
Chromium	ND		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:38	1
Cobalt	ND		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:38	1
Lead	ND		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:38	1
Lithium	ND		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:38	1
Magnesium	ND		1000	61	ug/L		09/20/24 14:00	09/23/24 17:38	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:38	1
Potassium	ND		1000	220	ug/L		09/20/24 14:00	09/23/24 17:38	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:38	1
Sodium	ND		1000	880	ug/L		09/20/24 14:00	09/23/24 17:38	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:38	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:18	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/09/24 05:55	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/09/24 05:55	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/09/24 05:55	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			09/23/24 08:30	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0242	U	0.0692	0.0692	1.00	0.128	pCi/L	09/24/24 08:50	10/16/24 23:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.476	U	0.335	0.337	1.00	0.500	pCi/L	09/24/24 08:53	10/11/24 12:05	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: EB-001-F-20240916-01
Date Collected: 09/16/24 14:50
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-3
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		30 - 110	09/24/24 08:53	10/11/24 12:05	1
Y Carrier	75.9		30 - 110	09/24/24 08:53	10/11/24 12:05	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.500		0.342	0.344	5.00	0.500	pCi/L		10/21/24 07:33	1

Client Sample ID: 96158-F-20240917-01
Date Collected: 09/17/24 10:41
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		09/20/24 14:00	09/23/24 21:39	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:45	1
Arsenic	1.4	J	5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:45	1
Barium	370		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:45	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:45	1
Cadmium	ND		1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:45	1
Calcium	65000		1000	250	ug/L		09/20/24 14:00	09/23/24 17:45	1
Chromium	7.0		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:45	1
Cobalt	1.6		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:45	1
Lead	0.93	J	1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:45	1
Lithium	38		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:45	1
Magnesium	13000		1000	61	ug/L		09/20/24 14:00	09/23/24 17:45	1
Molybdenum	11		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:45	1
Potassium	3600		1000	220	ug/L		09/20/24 14:00	09/23/24 17:45	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:45	1
Sodium	670000		1000	880	ug/L		09/20/24 14:00	09/23/24 17:45	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:45	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	330		5.0	2.6	mg/L			09/23/24 21:12	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	330		5.0	2.6	mg/L			09/23/24 21:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:12	1
Chloride (EPA 300.0)	1100		10	1.3	mg/L			10/09/24 06:35	10
Fluoride (EPA 300.0)	1.1		0.10	0.048	mg/L			10/09/24 06:15	2
Sulfate (EPA 300.0)	41		2.0	0.70	mg/L			10/09/24 06:15	2
Total Dissolved Solids (SM 2540C)	1900		20	16	mg/L			09/24/24 13:17	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.800		0.176	0.190	1.00	0.130	pCi/L	09/24/24 08:50	10/16/24 23:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:37*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.60		0.514	0.535	1.00	0.628	pCi/L	09/24/24 08:53	10/11/24 12:06	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: 96158-F-20240917-01
Date Collected: 09/17/24 10:41
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.5*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*
Y Carrier	*79.6*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.40**		0.543	0.568	5.00	0.628	pCi/L		10/21/24 07:33	1

Client Sample ID: 96157-F-20240917-01
Date Collected: 09/17/24 11:45
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-5
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**130**		100	57	ug/L		09/20/24 14:00	09/23/24 21:44	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:47	1
Arsenic	**54**		5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:47	1
Barium	**540**		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:47	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:47	1
Cadmium	ND		1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:47	1
Calcium	**70000**		1000	250	ug/L		09/20/24 14:00	09/23/24 17:47	1
Chromium	**2.8**	**J**	5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:47	1
Cobalt	**0.65**	**J**	1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:47	1
Lead	ND		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:47	1
Lithium	**8.9**		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:47	1
Magnesium	**13000**		1000	61	ug/L		09/20/24 14:00	09/23/24 17:47	1
Molybdenum	**6.0**		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:47	1
Potassium	**1900**		1000	220	ug/L		09/20/24 14:00	09/23/24 17:47	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:47	1
Sodium	**320000**		1000	880	ug/L		09/20/24 14:00	09/23/24 17:47	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**340**		5.0	2.6	mg/L			09/23/24 21:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**340**		5.0	2.6	mg/L			09/23/24 21:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:06	1
Chloride (EPA 300.0)	**480**		10	1.3	mg/L			10/09/24 07:54	10
Fluoride (EPA 300.0)	**0.92**		0.050	0.024	mg/L			10/09/24 06:54	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/09/24 06:54	1
Total Dissolved Solids (SM 2540C)	**960**		20	16	mg/L			09/24/24 13:17	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.549**		0.150	0.158	1.00	0.128	pCi/L	09/24/24 08:50	10/16/24 23:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.889**		0.390	0.399	1.00	0.502	pCi/L	09/24/24 08:53	10/11/24 12:06	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: 96157-F-20240917-01
Date Collected: 09/17/24 11:45
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211562-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*
Y Carrier	*80.4*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.44**		0.418	0.429	5.00	0.502	pCi/L		10/21/24 07:33	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211562-2	FIELD BLANK-001-F-20240916-01	89.1
240-211562-3	EB-001-F-20240916-01	100
240-211562-3 DU	EB-001-F-20240916-01	97.8
240-211562-4	96158-F-20240917-01	94.5
240-211562-5	96157-F-20240917-01	90.8
LCS 160-680779/2-A	Lab Control Sample	100
MB 160-680779/1-A	Method Blank	96.0

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211562-2	FIELD BLANK-001-F-20240916-01	89.1	79.6
240-211562-3	EB-001-F-20240916-01	100	75.9
240-211562-3 DU	EB-001-F-20240916-01	97.8	79.3
240-211562-4	96158-F-20240917-01	94.5	79.6
240-211562-5	96157-F-20240917-01	90.8	80.4
LCS 160-680780/2-A	Lab Control Sample	100	79.6
MB 160-680780/1-A	Method Blank	96.0	79.3

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-627866/1-A
Matrix: Water
Analysis Batch: 628082

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/24 14:00	09/23/24 20:49	1

Lab Sample ID: LCS 240-627866/2-A
Matrix: Water
Analysis Batch: 628082

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-627866/1-A
Matrix: Water
Analysis Batch: 628139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:16	1
Arsenic	ND		5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:16	1
Barium	ND		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:16	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:16	1
Cadmium	ND		1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:16	1
Calcium	ND		1000	250	ug/L		09/20/24 14:00	09/23/24 17:16	1
Chromium	ND		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:16	1
Cobalt	ND		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:16	1
Lead	ND		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:16	1
Lithium	ND		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:16	1
Magnesium	ND		1000	61	ug/L		09/20/24 14:00	09/23/24 17:16	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:16	1
Potassium	ND		1000	220	ug/L		09/20/24 14:00	09/23/24 17:16	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:16	1
Sodium	ND		1000	880	ug/L		09/20/24 14:00	09/23/24 17:16	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:16	1

Lab Sample ID: LCS 240-627866/3-A
Matrix: Water
Analysis Batch: 628139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	97.1		ug/L		97	80 - 120
Arsenic	1000	966		ug/L		97	80 - 120
Barium	1000	949		ug/L		95	80 - 120
Beryllium	500	438		ug/L		88	80 - 120
Cadmium	500	455		ug/L		91	80 - 120
Calcium	25000	25000		ug/L		100	80 - 120
Chromium	500	487		ug/L		97	80 - 120
Cobalt	500	503		ug/L		101	80 - 120
Lead	500	552		ug/L		110	80 - 120
Lithium	500	444		ug/L		89	80 - 120
Magnesium	25000	23900		ug/L		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-627866/3-A
Matrix: Water
Analysis Batch: 628139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	479		ug/L		96	80 - 120
Potassium	25000	24800		ug/L		99	80 - 120
Selenium	1000	880		ug/L		88	80 - 120
Sodium	25000	23400		ug/L		93	80 - 120
Thallium	1000	1080	^1+	ug/L		108	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-627870/1-A
Matrix: Water
Analysis Batch: 628155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:34	1

Lab Sample ID: LCS 240-627870/2-A
Matrix: Water
Analysis Batch: 628155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.94		ug/L		99	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-628257/30
Matrix: Water
Analysis Batch: 628257

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/23/24 19:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 19:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 19:27	1

Lab Sample ID: MB 240-628257/4
Matrix: Water
Analysis Batch: 628257

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/23/24 17:08	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 17:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 17:08	1

Lab Sample ID: LCS 240-628257/29
Matrix: Water
Analysis Batch: 628257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	268		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-629940/3
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 03:57	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 03:57	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 03:57	1

Lab Sample ID: LCS 240-629940/4
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.9		mg/L		102	90 - 110		
Fluoride			2.50	2.66		mg/L		106	90 - 110		
Sulfate			50.0	52.6		mg/L		105	90 - 110		

Lab Sample ID: 240-211562-1 MS
Matrix: Water
Analysis Batch: 629940

Client Sample ID: 2016-05-F-20240916-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	15		50.0	61.2		mg/L		93	80 - 120		
Fluoride	0.22		2.50	2.70		mg/L		99	80 - 120		
Sulfate	130		50.0	178		mg/L		88	80 - 120		

Lab Sample ID: 240-211562-1 MSD
Matrix: Water
Analysis Batch: 629940

Client Sample ID: 2016-05-F-20240916-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	15		50.0	64.4		mg/L		100	80 - 120	5	15
Fluoride	0.22		2.50	2.87		mg/L		106	80 - 120	6	15
Sulfate	130		50.0	181		mg/L		94	80 - 120	2	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-627971/1
Matrix: Water
Analysis Batch: 627971

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/23/24 08:30	1

Lab Sample ID: LCS 240-627971/2
Matrix: Water
Analysis Batch: 627971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	638		mg/L		88	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 240-628253/1
Matrix: Water
Analysis Batch: 628253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/24/24 13:17	1

Lab Sample ID: LCS 240-628253/2
Matrix: Water
Analysis Batch: 628253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	676		mg/L		94	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-680779/1-A
Matrix: Water
Analysis Batch: 683842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680779

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.002560	U	0.0619	0.0619	1.00	0.126	pCi/L	09/24/24 08:50	10/16/24 23:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:38*	*1*

Lab Sample ID: LCS 160-680779/2-A
Matrix: Water
Analysis Batch: 683842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680779

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	8.478		0.932	1.00	0.111	pCi/L	89	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*30 - 110*

Lab Sample ID: 240-211562-3 DU
Matrix: Water
Analysis Batch: 683843

Client Sample ID: EB-001-F-20240916-01
Prep Type: Total/NA
Prep Batch: 680779

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0242	U	0.01794	U	0.0636	1.00	0.121	pCi/L	0.05	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*97.8*		*30 - 110*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-680780/1-A
Matrix: Water
Analysis Batch: 683229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680780

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.002321	U	0.319	0.319	1.00	0.596	pCi/L	09/24/24 08:53	10/11/24 12:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:04*	*1*
Y Carrier	*79.3*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:04*	*1*

Lab Sample ID: LCS 160-680780/2-A
Matrix: Water
Analysis Batch: 683229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680780

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.44	9.315		1.27	1.00	0.537	pCi/L	110	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*30 - 110*
Y Carrier	*79.6*		*30 - 110*

Lab Sample ID: 240-211562-3 DU
Matrix: Water
Analysis Batch: 683229

Client Sample ID: EB-001-F-20240916-01
Prep Type: Total/NA
Prep Batch: 680780

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.476	U		0.1139	U	0.307	1.00	0.543	pCi/L			0.56	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*97.8*		*30 - 110*
Y Carrier	*79.3*		*30 - 110*

Metals

Prep Batch: 627866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total Recoverable	Water	3005A	
240-211562-2	FIELD BLANK-001-F-20240916-01	Total Recoverable	Water	3005A	
240-211562-3	EB-001-F-20240916-01	Total Recoverable	Water	3005A	
240-211562-4	96158-F-20240917-01	Total Recoverable	Water	3005A	
240-211562-5	96157-F-20240917-01	Total Recoverable	Water	3005A	
MB 240-627866/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-627866/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-627866/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 627870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total/NA	Water	7470A	
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	7470A	
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	7470A	
240-211562-4	96158-F-20240917-01	Total/NA	Water	7470A	
240-211562-5	96157-F-20240917-01	Total/NA	Water	7470A	
MB 240-627870/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-627870/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 628082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total Recoverable	Water	6010D	627866
240-211562-2	FIELD BLANK-001-F-20240916-01	Total Recoverable	Water	6010D	627866
240-211562-3	EB-001-F-20240916-01	Total Recoverable	Water	6010D	627866
240-211562-4	96158-F-20240917-01	Total Recoverable	Water	6010D	627866
240-211562-5	96157-F-20240917-01	Total Recoverable	Water	6010D	627866
MB 240-627866/1-A	Method Blank	Total Recoverable	Water	6010D	627866
LCS 240-627866/2-A	Lab Control Sample	Total Recoverable	Water	6010D	627866

Analysis Batch: 628139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total Recoverable	Water	6020B	627866
240-211562-2	FIELD BLANK-001-F-20240916-01	Total Recoverable	Water	6020B	627866
240-211562-3	EB-001-F-20240916-01	Total Recoverable	Water	6020B	627866
240-211562-4	96158-F-20240917-01	Total Recoverable	Water	6020B	627866
240-211562-5	96157-F-20240917-01	Total Recoverable	Water	6020B	627866
MB 240-627866/1-A	Method Blank	Total Recoverable	Water	6020B	627866
LCS 240-627866/3-A	Lab Control Sample	Total Recoverable	Water	6020B	627866

Analysis Batch: 628155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total/NA	Water	7470A	627870
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	7470A	627870
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	7470A	627870
240-211562-4	96158-F-20240917-01	Total/NA	Water	7470A	627870
240-211562-5	96157-F-20240917-01	Total/NA	Water	7470A	627870
MB 240-627870/1-A	Method Blank	Total/NA	Water	7470A	627870
LCS 240-627870/2-A	Lab Control Sample	Total/NA	Water	7470A	627870

General Chemistry

Analysis Batch: 627971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total/NA	Water	SM 2540C	
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	SM 2540C	
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	SM 2540C	
MB 240-627971/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-627971/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-4	96158-F-20240917-01	Total/NA	Water	SM 2540C	
240-211562-5	96157-F-20240917-01	Total/NA	Water	SM 2540C	
MB 240-628253/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628253/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total/NA	Water	2320B-1997	
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	2320B-1997	
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	2320B-1997	
240-211562-4	96158-F-20240917-01	Total/NA	Water	2320B-1997	
240-211562-5	96157-F-20240917-01	Total/NA	Water	2320B-1997	
MB 240-628257/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-628257/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-628257/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 629940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-1	2016-05-F-20240916-01	Total/NA	Water	300.0	
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	300.0	
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	300.0	
240-211562-4	96158-F-20240917-01	Total/NA	Water	300.0	
240-211562-4	96158-F-20240917-01	Total/NA	Water	300.0	
240-211562-5	96157-F-20240917-01	Total/NA	Water	300.0	
240-211562-5	96157-F-20240917-01	Total/NA	Water	300.0	
MB 240-629940/3	Method Blank	Total/NA	Water	300.0	
LCS 240-629940/4	Lab Control Sample	Total/NA	Water	300.0	
240-211562-1 MS	2016-05-F-20240916-01	Total/NA	Water	300.0	
240-211562-1 MSD	2016-05-F-20240916-01	Total/NA	Water	300.0	

Rad

Prep Batch: 680779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	PrecSep-21	
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	PrecSep-21	
240-211562-4	96158-F-20240917-01	Total/NA	Water	PrecSep-21	
240-211562-5	96157-F-20240917-01	Total/NA	Water	PrecSep-21	
MB 160-680779/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-680779/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-211562-3 DU	EB-001-F-20240916-01	Total/NA	Water	PrecSep-21	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211562-1
Project/Site: Gavin CCR Wells

Rad

Prep Batch: 680780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211562-2	FIELD BLANK-001-F-20240916-01	Total/NA	Water	PrecSep_0	
240-211562-3	EB-001-F-20240916-01	Total/NA	Water	PrecSep_0	
240-211562-4	96158-F-20240917-01	Total/NA	Water	PrecSep_0	
240-211562-5	96157-F-20240917-01	Total/NA	Water	PrecSep_0	
MB 160-680780/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-680780/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-211562-3 DU	EB-001-F-20240916-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR Wells

Job ID: 240-211562-1

Client Sample ID: 2016-05-F-20240916-01

Lab Sample ID: 240-211562-1

Date Collected: 09/16/24 11:25
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 21:26
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:33
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:43
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 21:22
Total/NA	Analysis	300.0		1	629940	JMR	EET CLE	10/09/24 04:36
Total/NA	Analysis	SM 2540C		1	627971	TAV2	EET CLE	09/23/24 08:30

Client Sample ID: FIELD BLANK-001-F-20240916-01

Lab Sample ID: 240-211562-2

Date Collected: 09/16/24 14:45
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 21:30
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:35
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:45
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 20:18
Total/NA	Analysis	300.0		1	629940	JMR	EET CLE	10/09/24 05:36
Total/NA	Analysis	SM 2540C		1	627971	TAV2	EET CLE	09/23/24 08:30
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:37
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Client Sample ID: EB-001-F-20240916-01

Lab Sample ID: 240-211562-3

Date Collected: 09/16/24 14:50
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 21:35
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:38
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:46
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 21:18
Total/NA	Analysis	300.0		1	629940	JMR	EET CLE	10/09/24 05:55
Total/NA	Analysis	SM 2540C		1	627971	TAV2	EET CLE	09/23/24 08:30

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211562-1
Project/Site: Gavin CCR Wells

Client Sample ID: EB-001-F-20240916-01
Lab Sample ID: 240-211562-3
Date Collected: 09/16/24 14:50
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:37
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Client Sample ID: 96158-F-20240917-01
Lab Sample ID: 240-211562-4
Date Collected: 09/17/24 10:41
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 21:39
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:45
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:48
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 21:12
Total/NA	Analysis	300.0		2	629940	JMR	EET CLE	10/09/24 06:15
Total/NA	Analysis	300.0		10	629940	JMR	EET CLE	10/09/24 06:35
Total/NA	Analysis	SM 2540C		1	628253	TAV2	EET CLE	09/24/24 13:17
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:37
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Client Sample ID: 96157-F-20240917-01
Lab Sample ID: 240-211562-5
Date Collected: 09/17/24 11:45
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 21:44
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:47
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:50
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 21:06
Total/NA	Analysis	300.0		1	629940	JMR	EET CLE	10/09/24 06:54
Total/NA	Analysis	300.0		10	629940	JMR	EET CLE	10/09/24 07:54
Total/NA	Analysis	SM 2540C		1	628253	TAV2	EET CLE	09/24/24 13:17
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:38

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211562-1
Project/Site: Gavin CCR Wells

Client Sample ID: 96157-F-20240917-01
Lab Sample ID: 240-211562-5
Date Collected: 09/17/24 11:45
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211562-1
Project/Site: Gavin CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211562-1
Project/Site: Gavin CCR Wells

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus
209

eurofins
Environment Testing

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	D	N	N	X	
2016-05-F-20240916-01	9-16-24	1125	G	Water	N		1	1		1	1	4	
Field Blank-001-F-20240916-01	9-16-24	1445	G	Water	N		1	1	2	1	1	6	
EB-001-F-20240916-01	9-16-24	1450	G	Water	N		1	1	2	1	1	6	
96158-F-20240917-01	9-17-24	1041	G	Water	N		1	1	2	1	1	6	
96157-F-20240917-01	9-17-24	1145	G	Water	N		1	1	2	1	1	6	
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-211562 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Bobby Casto	9-19-24 0930	KEMRON	Received by: Ashley Deal	Date/Time: 9-19-24 1:50	Company ETA
Relinquished by: Ashley Deal	Date/Time: 9-19-24 1700	Company ETA	Received by:	Date/Time: 9-20-24	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

10/21/2024

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client GLOW Site Name _____ Cooler unpacked by: MALISSA LOAR

Cooler Received on 9.26.24 Opened on 9.20.24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # OK Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp _____ °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No
	-Were tamper/custody seals intact and uncompromised?	Yes No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes No
4.	Did custody papers accompany the sample(s)?	Yes No
5	Were the custody papers relinquished & signed in the appropriate place?	Yes No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No
7	Did all bottles arrive in good condition (Unbroken)?	Yes No
8	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	Yes No
11	Sufficient quantity received to perform indicated analyses?	Yes No
12.	Are these work share samples and all listed on the COC?	Yes No
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA pH Strip Lot# HC442471
14	Were VOAs on the COC?	Yes No
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No NA
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes No
17	Was a LL Hg or Me Hg trip blank present? _____	Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s). _____

VOA Sample Preservation - Date/Time VOAs Frozen _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	0.9	0.8	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.9	1.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.3	1.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	10.0	9.9	Wet Ice Blue Ice Dry Ice Water (None)
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None

9/20/2024

Login Container Summary Report

240-211562

10/21/2024

Temperature readings. _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2016-05-F-20240916-01	240-211562-A-1	Plastic 60 mL - unpreserved				
2016-05-F-20240916-01	240-211562-B-1	Plastic 60 mL - unpreserved				
2016-05-F-20240916-01	240-211562-C-1	Plastic 500ml - unpreserved				
2016-05-F-20240916-01	240-211562-D-1	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-20240916-01	240-211562-A-2	Plastic 60 mL - unpreserved				
FIELD BLANK-001-F-20240916-01	240-211562-B-2	Plastic 60 mL - unpreserved				
FIELD BLANK-001-F-20240916-01	240-211562-C-2	Plastic 500ml - unpreserved				
FIELD BLANK-001-F-20240916-01	240-211562-D-2	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-20240916-01	240-211562-E-2	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001-F-20240916-01	240-211562-F-2	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240916-01	240-211562-A-3	Plastic 60 mL - unpreserved				
EB-001-F-20240916-01	240-211562-B-3	Plastic 60 mL - unpreserved				
EB-001-F-20240916-01	240-211562-C-3	Plastic 500ml - unpreserved				
EB-001-F-20240916-01	240-211562-D-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20240916-01	240-211562-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240916-01	240-211562-F-3	Plastic 1 liter - Nitric Acid	<2			
96158-F-20240917-01	240-211562-A-4	Plastic 60 mL - unpreserved				
96158-F-20240917-01	240-211562-B-4	Plastic 60 mL - unpreserved				
96158-F-20240917-01	240-211562-C-4	Plastic 500ml - unpreserved				
96158-F-20240917-01	240-211562-D-4	Plastic 500ml - with Nitric Acid	<2			
96158-F-20240917-01	240-211562-E-4	Plastic 1 liter - Nitric Acid	<2			
96158-F-20240917-01	240-211562-F-4	Plastic 1 liter - Nitric Acid	<2			
96157-F-20240917-01	240-211562-A-5	Plastic 60 mL - unpreserved				
96157-F-20240917-01	240-211562-B-5	Plastic 60 mL - unpreserved				
96157-F-20240917-01	240-211562-C-5	Plastic 500ml - unpreserved				
96157-F-20240917-01	240-211562-D-5	Plastic 500ml - with Nitric Acid	<2			
96157-F-20240917-01	240-211562-E-5	Plastic 1 liter - Nitric Acid	<2			
96157-F-20240917-01	240-211562-F-5	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190967.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211562-1
Address: 13715 Rider Trail North,	Due Date Requested: 10/20/2024			Preservation Codes:
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Special Instructions/Note:
Preservation Code:										
FIELD BLANK-001-F-20240916-01 (240-211562-2)	9/16/24	14:45 Eastern	G	Water			X	X	X	
EB-001-F-20240916-01 (240-211562-3)	9/16/24	14:50 Eastern	G	Water			X	X	X	
96158-F-20240917-01 (240-211562-4)	9/17/24	10:41 Eastern	G	Water			X	X	X	
96157-F-20240917-01 (240-211562-5)	9/17/24	11:45 Eastern	G	Water			X	X	X	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by: MELISSA LOAR	Date/Time: 9-20-24	Company	Received by: Sina Wagner	Date/Time: 9/23/24 0850	Company EAST
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

10/21/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211562-1

Login Number: 211562
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/23/24 11:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/21/2024 8:44:07 AM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-211563-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/21/2024 8:44:07 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Qualifiers

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211563-1 — Eurofins Cleveland

Job Narrative
240-211563-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/20/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.8°C, 1.2°C, 1.8°C and 9.9°C.

Metals
Method 6020B - Total Recoverable: The initial calibration verification low (ICVL) associated with batch 240-628139 recovered above the upper control limit for Thallium. The samples associated with this ICVL were below the reporting limit for the affected analytes; therefore, the data have been reported. 2019-09-F-20240917-01 (240-211563-1), 2019-07-F-20240918-01 (240-211563-2) and 2022-14--F-20240918-01 (240-211563-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: Reanalysis of the following sample was performed outside of the analytical holding time due to sample being over 2 mg residue limit : 2019-09-F-20240917-01 (240-211563-1).

Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2019-09-F-20240917-01 (240-211563-1), 2019-07-F-20240918-01 (240-211563-2) and 2022-14--F-20240918-01 (240-211563-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-680779

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 2019-09-F-20240917-01 (240-211563-1) and 2019-07-F-20240918-01 (240-211563-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium 226 Batch 680779

160-680779
The Ba Carrier recovery was outside the upper control limit. This can be attributed to matrix interference noted during the initial preparation. The Laboratory Control Sample (LCS) has acceptable spike recovery, demonstrating proper method and instrument performance. Native Barium was found in the sample, and this value was used to correct the carrier yield. The sample has been truncated to minimize any potential bias a high carrier recovery may have on the results. 2019-09-F-20240917-01 (240-211563-1) and 2019-07-F-20240918-01 (240-211563-2)

Method 9320_Ra228: Radium 228 prep batch 160-680780

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 2019-09-F-20240917-01 (240-211563-1) and 2019-07-F-20240918-01 (240-211563-2). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the

presence of matrix interference.

Method 9320_Ra228: Radium-228 batch 680780
The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 2019-09-F-20240917-01 (240-211563-1) and 2019-07-F-20240918-01 (240-211563-2)

Method 9320_Ra228: Radium-228 batch 680780
The detection goal was not met for the following sample due to the reduced sample volume used in prep attributed to the presence of matrix interferences: 2019-09-F-20240917-01 (240-211563-1). Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211563-1
Project/Site: Gavin CCR

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211563-1	2019-09-F-20240917-01	Water	09/17/24 13:36	09/20/24 08:00
240-211563-2	2019-07-F-20240918-01	Water	09/18/24 11:57	09/20/24 08:00
240-211563-3	2022-14--F-20240918-01	Water	09/18/24 14:11	09/20/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Client Sample ID: 2019-09-F-20240917-01 — Lab Sample ID: 240-211563-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	420		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	3.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	34000		250	39	ug/L	50		6020B	Total Recoverable
Calcium	1200000		50000	13000	ug/L	50		6020B	Total Recoverable
Chromium	17		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	3.1		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	1.9		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	270		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	300000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	26		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	26000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	11000000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	22000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	29000	H	1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2019-07-F-20240918-01 — Lab Sample ID: 240-211563-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	530		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	610		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.16	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	1200000		50000	13000	ug/L	50		6020B	Total Recoverable
Chromium	99		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	15		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.55	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	280		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	270000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	15		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	22000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	11000000		50000	44000	ug/L	50		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 2019-07-F-20240918-01 (Continued)

Lab Sample ID: 240-211563-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Alkalinity	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	23000		1000	130	mg/L	1000		300.0	Total/NA
Sulfate	380		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	31000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-14--F-20240918-01

Lab Sample ID: 240-211563-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.59	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.1	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	2200		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.15	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	320000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	13		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	3.1		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	3.5		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	140		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	82000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	18		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	10000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5300000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	11000		100	13	mg/L	100		300.0	Total/NA
Sulfate	150		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	18000		100	78	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2019-09-F-20240917-01
Date Collected: 09/17/24 13:36
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211563-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**420**		100	57	ug/L		09/20/24 14:00	09/23/24 21:48	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:50	1
Arsenic	**3.1**	**J**	5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:50	1
Barium	**34000**		250	39	ug/L		09/20/24 14:00	09/24/24 12:36	50
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:50	1
Cadmium	ND		1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:50	1
Calcium	**1200000**		50000	13000	ug/L		09/20/24 14:00	09/24/24 12:36	50
Chromium	**17**		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:50	1
Cobalt	**3.1**		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:50	1
Lead	**1.9**		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:50	1
Lithium	**270**		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:50	1
Magnesium	**300000**		1000	61	ug/L		09/20/24 14:00	09/23/24 17:50	1
Molybdenum	**26**		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:50	1
Potassium	**26000**		1000	220	ug/L		09/20/24 14:00	09/23/24 17:50	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:50	1
Sodium	**11000000**		50000	44000	ug/L		09/20/24 14:00	09/24/24 12:36	50
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:50	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**170**		5.0	2.6	mg/L			09/23/24 21:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**170**		5.0	2.6	mg/L			09/23/24 21:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 21:01	1
Chloride (EPA 300.0)	**22000**		1000	130	mg/L			10/09/24 08:33	1000
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/09/24 08:14	100
Sulfate (EPA 300.0)	ND		100	35	mg/L			10/09/24 08:14	100
Total Dissolved Solids (SM 2540C)	**29000**	**H**	1000	780	mg/L			09/25/24 13:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**37.8**		1.78	3.84	1.00	0.367	pCi/L	09/24/24 08:50	10/16/24 23:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*150*	*X*	*30 - 110*	*09/24/24 08:50*	*10/16/24 23:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**86.6**	**G**	3.90	8.87	1.00	1.03	pCi/L	09/24/24 08:53	10/11/24 12:06	1

Client Sample ID: 2019-09-F-20240917-01
Date Collected: 09/17/24 13:36
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211563-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*150*	*X*	*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*
Y Carrier	*83.4*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**124**		4.29	9.67	5.00	1.03	pCi/L		10/21/24 07:33	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Client Sample ID: 2019-07-F-20240918-01

Date Collected: 09/18/24 11:57
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211563-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**530**		100	57	ug/L		09/20/24 14:00	09/23/24 22:01	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:53	1
Arsenic	**1.5**	**J**	5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:53	1
Barium	**610**		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:53	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:53	1
Cadmium	**0.16**	**J**	1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:53	1
Calcium	**1200000**		50000	13000	ug/L		09/20/24 14:00	09/24/24 12:39	50
Chromium	**99**		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:53	1
Cobalt	**15**		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:53	1
Lead	**0.55**	**J**	1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:53	1
Lithium	**280**		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:53	1
Magnesium	**270000**		1000	61	ug/L		09/20/24 14:00	09/23/24 17:53	1
Molybdenum	**15**		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:53	1
Potassium	**22000**		1000	220	ug/L		09/20/24 14:00	09/23/24 17:53	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:53	1
Sodium	**11000000**		50000	44000	ug/L		09/20/24 14:00	09/24/24 12:39	50
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**220**		5.0	2.6	mg/L			09/23/24 20:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**220**		5.0	2.6	mg/L			09/23/24 20:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 20:55	1
Chloride (EPA 300.0)	**23000**		1000	130	mg/L			10/09/24 09:13	1000
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/09/24 08:53	100
Sulfate (EPA 300.0)	**380**		100	35	mg/L			10/09/24 08:53	100
Total Dissolved Solids (SM 2540C)	**31000**		1000	780	mg/L			09/25/24 13:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.638**		0.213	0.221	1.00	0.216	pCi/L	09/24/24 08:50	10/16/24 23:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*190*	*X*	*30 - 110*	*09/24/24 08:50*	*10/16/24 23:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.26**		0.537	0.549	1.00	0.716	pCi/L	09/24/24 08:53	10/11/24 12:06	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Client Sample ID: 2019-07-F-20240918-01
Date Collected: 09/18/24 11:57
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211563-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*190*	*X*	*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*
Y Carrier	*82.6*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:06*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.90**		0.578	0.592	5.00	0.716	pCi/L		10/21/24 07:33	1

Client Sample ID: 2022-14--F-20240918-01
Date Collected: 09/18/24 14:11
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211563-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	390		100	57	ug/L		09/20/24 14:00	09/23/24 22:05	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.59	J	2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:55	1
Arsenic	1.1	J	5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:55	1
Barium	2200		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:55	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:55	1
Cadmium	0.15	J	1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:55	1
Calcium	320000		1000	250	ug/L		09/20/24 14:00	09/23/24 17:55	1
Chromium	13		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:55	1
Cobalt	3.1		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:55	1
Lead	3.5		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:55	1
Lithium	140		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:55	1
Magnesium	82000		1000	61	ug/L		09/20/24 14:00	09/23/24 17:55	1
Molybdenum	18		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:55	1
Potassium	10000		1000	220	ug/L		09/20/24 14:00	09/23/24 17:55	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:55	1
Sodium	5300000		10000	8800	ug/L		09/20/24 14:00	09/24/24 12:41	10
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	180		5.0	2.6	mg/L			09/23/24 20:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	180		5.0	2.6	mg/L			09/23/24 20:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/23/24 20:47	1
Chloride (EPA 300.0)	11000		100	13	mg/L			10/09/24 09:32	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/09/24 09:32	100
Sulfate (EPA 300.0)	150		100	35	mg/L			10/09/24 09:32	100
Total Dissolved Solids (SM 2540C)	18000		100	78	mg/L			09/24/24 13:17	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.85		0.429	0.500	1.00	0.216	pCi/L	09/24/24 08:50	10/16/24 23:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.08		0.905	0.948	1.00	1.00	pCi/L	09/24/24 08:53	10/11/24 12:06	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Client Sample ID: 2022-14--F-20240918-01
Date Collected: 09/18/24 14:11
Date Received: 09/20/24 08:00

Lab Sample ID: 240-211563-3
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	109		30 - 110	09/24/24 08:53	10/11/24 12:06	1
Y Carrier	74.4		30 - 110	09/24/24 08:53	10/11/24 12:06	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	5.93		1.00	1.07	5.00	1.00	pCi/L		10/21/24 07:33	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211563-1	2019-09-F-20240917-01	150 X
240-211563-2	2019-07-F-20240918-01	190 X
240-211563-3	2022-14--F-20240918-01	109
LCS 160-680779/2-A	Lab Control Sample	100
MB 160-680779/1-A	Method Blank	96.0

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211563-1	2019-09-F-20240917-01	150 X	83.4
240-211563-2	2019-07-F-20240918-01	190 X	82.6
240-211563-3	2022-14--F-20240918-01	109	74.4
LCS 160-680780/2-A	Lab Control Sample	100	79.6
MB 160-680780/1-A	Method Blank	96.0	79.3

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-627866/1-A
Matrix: Water
Analysis Batch: 628082

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/20/24 14:00	09/23/24 20:49	1

Lab Sample ID: LCS 240-627866/2-A
Matrix: Water
Analysis Batch: 628082

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-627866/1-A
Matrix: Water
Analysis Batch: 628139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/20/24 14:00	09/23/24 17:16	1
Arsenic	ND		5.0	0.75	ug/L		09/20/24 14:00	09/23/24 17:16	1
Barium	ND		5.0	0.77	ug/L		09/20/24 14:00	09/23/24 17:16	1
Beryllium	ND		1.0	0.27	ug/L		09/20/24 14:00	09/23/24 17:16	1
Cadmium	ND		1.0	0.077	ug/L		09/20/24 14:00	09/23/24 17:16	1
Calcium	ND		1000	250	ug/L		09/20/24 14:00	09/23/24 17:16	1
Chromium	ND		5.0	1.2	ug/L		09/20/24 14:00	09/23/24 17:16	1
Cobalt	ND		1.0	0.086	ug/L		09/20/24 14:00	09/23/24 17:16	1
Lead	ND		1.0	0.45	ug/L		09/20/24 14:00	09/23/24 17:16	1
Lithium	ND		8.0	3.4	ug/L		09/20/24 14:00	09/23/24 17:16	1
Magnesium	ND		1000	61	ug/L		09/20/24 14:00	09/23/24 17:16	1
Molybdenum	ND		5.0	1.1	ug/L		09/20/24 14:00	09/23/24 17:16	1
Potassium	ND		1000	220	ug/L		09/20/24 14:00	09/23/24 17:16	1
Selenium	ND		5.0	0.89	ug/L		09/20/24 14:00	09/23/24 17:16	1
Sodium	ND		1000	880	ug/L		09/20/24 14:00	09/23/24 17:16	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/20/24 14:00	09/23/24 17:16	1

Lab Sample ID: LCS 240-627866/3-A
Matrix: Water
Analysis Batch: 628139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	97.1		ug/L		97	80 - 120
Arsenic	1000	966		ug/L		97	80 - 120
Barium	1000	949		ug/L		95	80 - 120
Beryllium	500	438		ug/L		88	80 - 120
Cadmium	500	455		ug/L		91	80 - 120
Calcium	25000	25000		ug/L		100	80 - 120
Chromium	500	487		ug/L		97	80 - 120
Cobalt	500	503		ug/L		101	80 - 120
Lead	500	552		ug/L		110	80 - 120
Lithium	500	444		ug/L		89	80 - 120
Magnesium	25000	23900		ug/L		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-627866/3-A
Matrix: Water
Analysis Batch: 628139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 627866

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	479		ug/L		96	80 - 120
Potassium	25000	24800		ug/L		99	80 - 120
Selenium	1000	880		ug/L		88	80 - 120
Sodium	25000	23400		ug/L		93	80 - 120
Thallium	1000	1080	^1+	ug/L		108	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-627870/1-A
Matrix: Water
Analysis Batch: 628155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 627870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/20/24 14:00	09/23/24 15:34	1

Lab Sample ID: LCS 240-627870/2-A
Matrix: Water
Analysis Batch: 628155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 627870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.94		ug/L		99	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-628257/30
Matrix: Water
Analysis Batch: 628257

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/23/24 19:27	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 19:27	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 19:27	1

Lab Sample ID: MB 240-628257/4
Matrix: Water
Analysis Batch: 628257

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/23/24 17:08	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 17:08	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/23/24 17:08	1

Lab Sample ID: LCS 240-628257/29
Matrix: Water
Analysis Batch: 628257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	268		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-629940/3
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 03:57	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 03:57	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 03:57	1

Lab Sample ID: LCS 240-629940/4
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.9		mg/L		102	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-628253/1
Matrix: Water
Analysis Batch: 628253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/24/24 13:17	1

Lab Sample ID: LCS 240-628253/2
Matrix: Water
Analysis Batch: 628253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	676		mg/L		94	80 - 120

Lab Sample ID: MB 240-628431/1
Matrix: Water
Analysis Batch: 628431

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/25/24 13:43	1

Lab Sample ID: LCS 240-628431/2
Matrix: Water
Analysis Batch: 628431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	671		mg/L		93	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-680779/1-A
Matrix: Water
Analysis Batch: 683842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680779

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.002560	U	0.0619	0.0619	1.00	0.126	pCi/L	09/24/24 08:50	10/16/24 23:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*09/24/24 08:50*	*10/16/24 23:38*	*1*

Lab Sample ID: LCS 160-680779/2-A
Matrix: Water
Analysis Batch: 683842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680779

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.478		0.932	1.00	0.111	pCi/L	89	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-680780/1-A
Matrix: Water
Analysis Batch: 683229

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 680780

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.002321	U	0.319	0.319	1.00	0.596	pCi/L	09/24/24 08:53	10/11/24 12:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:04*	*1*
Y Carrier	*79.3*		*30 - 110*	*09/24/24 08:53*	*10/11/24 12:04*	*1*

Lab Sample ID: LCS 160-680780/2-A
Matrix: Water
Analysis Batch: 683229

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 680780

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.44	9.315		1.27	1.00	0.537	pCi/L	110	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*100*		*30 - 110*
Y Carrier	*79.6*		*30 - 110*

Metals

Prep Batch: 627866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total Recoverable	Water	3005A	
240-211563-2	2019-07-F-20240918-01	Total Recoverable	Water	3005A	
240-211563-3	2022-14--F-20240918-01	Total Recoverable	Water	3005A	
MB 240-627866/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-627866/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-627866/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 627870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	7470A	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	7470A	
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	7470A	
MB 240-627870/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-627870/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 628082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total Recoverable	Water	6010D	627866
240-211563-2	2019-07-F-20240918-01	Total Recoverable	Water	6010D	627866
240-211563-3	2022-14--F-20240918-01	Total Recoverable	Water	6010D	627866
MB 240-627866/1-A	Method Blank	Total Recoverable	Water	6010D	627866
LCS 240-627866/2-A	Lab Control Sample	Total Recoverable	Water	6010D	627866

Analysis Batch: 628139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total Recoverable	Water	6020B	627866
240-211563-2	2019-07-F-20240918-01	Total Recoverable	Water	6020B	627866
240-211563-3	2022-14--F-20240918-01	Total Recoverable	Water	6020B	627866
MB 240-627866/1-A	Method Blank	Total Recoverable	Water	6020B	627866
LCS 240-627866/3-A	Lab Control Sample	Total Recoverable	Water	6020B	627866

Analysis Batch: 628155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	7470A	627870
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	7470A	627870
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	7470A	627870
MB 240-627870/1-A	Method Blank	Total/NA	Water	7470A	627870
LCS 240-627870/2-A	Lab Control Sample	Total/NA	Water	7470A	627870

Analysis Batch: 628252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total Recoverable	Water	6020B	627866
240-211563-2	2019-07-F-20240918-01	Total Recoverable	Water	6020B	627866
240-211563-3	2022-14--F-20240918-01	Total Recoverable	Water	6020B	627866

General Chemistry

Analysis Batch: 628253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	SM 2540C	
MB 240-628253/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 628253 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-628253/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	2320B-1997	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	2320B-1997	
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	2320B-1997	
MB 240-628257/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-628257/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-628257/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 628431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	SM 2540C	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	SM 2540C	
MB 240-628431/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628431/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	300.0	
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	300.0	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	300.0	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	300.0	
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	300.0	
MB 240-629940/3	Method Blank	Total/NA	Water	300.0	
LCS 240-629940/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 680779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	PrecSep-21	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	PrecSep-21	
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	PrecSep-21	
MB 160-680779/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-680779/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 680780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211563-1	2019-09-F-20240917-01	Total/NA	Water	PrecSep_0	
240-211563-2	2019-07-F-20240918-01	Total/NA	Water	PrecSep_0	
240-211563-3	2022-14--F-20240918-01	Total/NA	Water	PrecSep_0	
MB 160-680780/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-680780/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211563-1

Client Sample ID: 2019-09-F-20240917-01

Lab Sample ID: 240-211563-1

Date Collected: 09/17/24 13:36

Matrix: Water

Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 21:48
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:50
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		50	628252	AJC	EET CLE	09/24/24 12:36
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:55
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 21:01
Total/NA	Analysis	300.0		100	629940	JMR	EET CLE	10/09/24 08:14
Total/NA	Analysis	300.0		1000	629940	JMR	EET CLE	10/09/24 08:33
Total/NA	Analysis	SM 2540C		1	628431	TAV2	EET CLE	09/25/24 13:43
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:38
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Client Sample ID: 2019-07-F-20240918-01

Lab Sample ID: 240-211563-2

Date Collected: 09/18/24 11:57

Matrix: Water

Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 22:01
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:53
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		50	628252	AJC	EET CLE	09/24/24 12:39
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:57
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 20:55
Total/NA	Analysis	300.0		100	629940	JMR	EET CLE	10/09/24 08:53
Total/NA	Analysis	300.0		1000	629940	JMR	EET CLE	10/09/24 09:13
Total/NA	Analysis	SM 2540C		1	628431	TAV2	EET CLE	09/25/24 13:43
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:38
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211563-1
Project/Site: Gavin CCR

Client Sample ID: 2022-14--F-20240918-01
Lab Sample ID: 240-211563-3
Date Collected: 09/18/24 14:11
Matrix: Water
Date Received: 09/20/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6010D		1	628082	RKT	EET CLE	09/23/24 22:05
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		1	628139	AJC	EET CLE	09/23/24 17:55
Total Recoverable	Prep	3005A			627866	GK	EET CLE	09/20/24 14:00
Total Recoverable	Analysis	6020B		10	628252	AJC	EET CLE	09/24/24 12:41
Total/NA	Prep	7470A			627870	GK	EET CLE	09/20/24 14:00
Total/NA	Analysis	7470A		1	628155	GK	EET CLE	09/23/24 15:58
Total/NA	Analysis	2320B-1997		1	628257	JMR	EET CLE	09/23/24 20:47
Total/NA	Analysis	300.0		100	629940	JMR	EET CLE	10/09/24 09:32
Total/NA	Analysis	SM 2540C		1	628253	TAV2	EET CLE	09/24/24 13:17
Total/NA	Prep	PrecSep-21			680779	MLT	EET SL	09/24/24 08:50
Total/NA	Analysis	9315		1	683843	SCB	EET SL	10/16/24 23:38
Total/NA	Prep	PrecSep_0			680780	MLT	EET SL	09/24/24 08:53
Total/NA	Analysis	9320		1	683229	FLC	EET SL	10/11/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/21/24 07:33

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211563-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211563-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus
209

eurofins
Environment Testing

Client Information	Sampler: Robby Castle	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID	Analysis Requested		Job #:
Address: 7397 OH-7	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity		Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N			
2019-09-F-20240917-01	9-17-24	1336	G	Water	N		1	1	2	1	1		6	
2019-07-F-20240918-01	9-18-24	1157	G	Water	N		1	1	2	1	1		6	
2022-14-F-20240918-01	9-18-24	1411	G	Water	N		1	1	2	1	1		6	
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										

240-211563 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
1	Robby Castle	9-19-24 / 0930	RCA	Ashley Deal	9-19-24 1:50	ETA
2	Ashley Deal	9-19-24 1200	ETA	[illegible]	9-20-24 8AM	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Basin Site Name _____ Cooler unpacked by: MALISSA LOAR

Cooler Received on 9-20-24 Opened on 9:20:24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location ----

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp _____ °C Corrected Cooler Temp _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC442471
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter *(Notify PM)*

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	0.9	0.8	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.9	1.8	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.3	1.2	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	10.0	9.9	Wet Ice Blue Ice Dry Ice Water (None)
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

9/20/2024

Login Container Summary Report

240-211563

10/21/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2019-09-F-20240917-01	240-211563-A-1	Plastic 60 mL - unpreserved				
2019-09-F-20240917-01	240-211563-B-1	Plastic 60 mL - unpreserved				
2019-09-F-20240917-01	240-211563-C-1	Plastic 500ml - unpreserved				
2019-09-F-20240917-01	240-211563-D-1	Plastic 500ml - with Nitric Acid	<2			
2019-09-F-20240917-01	240-211563-G-1	Plastic 1 liter - Nitric Acid	<2			
2019-09-F-20240917-01	240-211563-H-1	Plastic 1 liter - Nitric Acid	<2			
2019-07-F-20240918-01	240-211563-A-2	Plastic 60 mL - unpreserved				
2019-07-F-20240918-01	240-211563-B-2	Plastic 60 mL - unpreserved				
2019-07-F-20240918-01	240-211563-C-2	Plastic 500ml - unpreserved				
2019-07-F-20240918-01	240-211563-D-2	Plastic 500ml - with Nitric Acid	<2			
2019-07-F-20240918-01	240-211563-E-2	Plastic 1 liter - Nitric Acid	<2			
2019-07-F-20240918-01	240-211563-F-2	Plastic 1 liter - Nitric Acid	<2			
2022-14--F-20240918-01	240-211563-A-3	Plastic 60 mL - unpreserved				
2022-14--F-20240918-01	240-211563-B-3	Plastic 60 mL - unpreserved				
2022-14--F-20240918-01	240-211563-C-3	Plastic 500ml - unpreserved				
2022-14--F-20240918-01	240-211563-D-3	Plastic 500ml - with Nitric Acid	<2			
2022-14--F-20240918-01	240-211563-E-3	Plastic 1 liter - Nitric Acid	<2			
2022-14--F-20240918-01	240-211563-F-3	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-190967.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211563-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/20/2024	Analysis Requested		Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
2019-09-F-20240917-01 (240-211563-1)	9/17/24	13:36 Eastern	G	Water	X	X	X	2	
2019-07-F-20240918-01 (240-211563-2)	9/18/24	11:57 Eastern	G	Water	X	X	X	2	
2022-14--F-20240918-01 (240-211563-3)	9/18/24	14:11 Eastern	G	Water	X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: [redacted]	9-20-24		Sina Warfa	9/23/24 0850	EMLN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/21/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211563-1

Login Number: 211563
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/23/24 11:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/25/2024 12:19:11 AM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-211719-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211719-1
Project/Site: Gavin CCR

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211719-1 Eurofins Cleveland

Job Narrative
240-211719-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/24/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7°C and 2.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: MW-17-F-20240919-01 (240-211719-1) and 9631-F-F20240920-01 (240-211719-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-681025

The barium carrier recovery is outside the upper control limit (110%) for the following sample: 9631-F-F20240920-01 (240-211719-5). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 batch 681025
The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 9631-F-F20240920-01 (240-211719-5)

Method 9320_Ra228: Radium 228 prep batch 160-681026

The barium carrier recovery is outside the upper control limit (110%) for the following sample: 9631-F-F20240920-01 (240-211719-5). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 batch 681026
The detection goal was not met for the following samples due to the reduced sample volume used in prep attributed to the presence of matrix interferences: 2023-F-20240919-01 (240-211719-3) and 94139-F-20240920-01 (240-211719-6). Analytical results are reported with the detection limit achieved.

Method 9320_Ra228: Radium-228 batch 680126
The following sample has a barium carrier recovery above the 110% QC limit. Affected samples had a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, sodium, and strontium) that can interfere with a barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported. 9631-F-F20240920-01 (240-211719-5)

Job ID: 240-211719-1 (Continued) Eurofins Cleveland

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211719-1	MW-17-F-20240919-01	Water	09/19/24 11:32	09/24/24 08:00
240-211719-2	DUP-002-F-20240919-01	Water	09/19/24 00:00	09/24/24 08:00
240-211719-3	2023-F-20240919-01	Water	09/19/24 13:47	09/24/24 08:00
240-211719-4	93108-F-20240919-01	Water	09/19/24 15:07	09/24/24 08:00
240-211719-5	9631-F-F20240920-01	Water	09/20/24 13:29	09/24/24 08:00
240-211719-6	94139-F-20240920-01	Water	09/20/24 15:29	09/24/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: MW-17-F-20240919-01 — Lab Sample ID: 240-211719-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	880		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	25		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	230		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.31	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.11	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	300000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.3		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	160		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	84000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	8900		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	5.9		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	4500000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	1100		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	1100		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	7400		100	13	mg/L	100		300.0	Total/NA
Sulfate	2800		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	9600		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-002-F-20240919-01 — Lab Sample ID: 240-211719-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	910		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.71	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	27		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	200		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.40	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.23	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	330000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.5		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	170		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	90000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-002-F-20240919-01 (Continued)

Lab Sample ID: 240-211719-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	9100		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	6.5		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	4400000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	1100		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	1100		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	7000		100	13	mg/L	100		300.0	Total/NA
Sulfate	2700		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	9500		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2023-F-20240919-01

Lab Sample ID: 240-211719-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	460		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.67	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	28		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	130		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.36	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.17	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	7700		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	8.8		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.7		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	1.8		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	23		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	2100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	130		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2500		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	7.1		5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	620000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	800		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	800		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	350		2.0	0.26	mg/L	2		300.0	Total/NA
Fluoride	3.8		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	61		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: 93108-F-20240919-01 — Lab Sample ID: 240-211719-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	440		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	4.4	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	530		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.13	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	19000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.094	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	42		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	5300		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	88		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2400		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.3	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1400000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	450		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	450		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2000		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	2.7		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	17		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3400		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9631-F-F20240920-01 — Lab Sample ID: 240-211719-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	35000		250	39	ug/L	50		6020B	Total Recoverable
Cadmium	0.16	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	1400000		50000	13000	ug/L	50		6020B	Total Recoverable
Chromium	4.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.3		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.79	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	340		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	490000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.6	J	5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: 9631-F-F20240920-01 (Continued)

Lab Sample ID: 240-211719-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	25000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.4	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	13000000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	70		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	70		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	29000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	41000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94139-F-20240920-01

Lab Sample ID: 240-211719-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	490		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	4.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	110		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.13	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	8600		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	14		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.95	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	1.3		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	18		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	2600		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	190		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	570000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	500		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	480		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	24		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	500		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	4.9		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	64		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-17-F-20240919-01

Date Collected: 09/19/24 11:32
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**880**		100	57	ug/L		09/24/24 14:00	09/25/24 19:24	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 00:48	1
Arsenic	**25**		5.0	0.75	ug/L		09/24/24 14:00	09/26/24 00:48	1
Barium	**230**		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 00:48	1
Beryllium	**0.31**	**J**	1.0	0.27	ug/L		09/24/24 14:00	09/26/24 00:48	1
Cadmium	**0.11**	**J**	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 00:48	1
Calcium	**300000**		1000	250	ug/L		09/24/24 14:00	09/26/24 00:48	1
Chromium	ND		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 00:48	1
Cobalt	**1.3**		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 00:48	1
Lead	ND		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 00:48	1
Lithium	**160**		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 00:48	1
Magnesium	**84000**		1000	61	ug/L		09/24/24 14:00	09/26/24 00:48	1
Molybdenum	**11**		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 00:48	1
Potassium	**8900**		1000	220	ug/L		09/24/24 14:00	09/26/24 00:48	1
Selenium	**5.9**		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 00:48	1
Sodium	**4500000**		10000	8800	ug/L		09/24/24 14:00	09/27/24 15:57	10
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 00:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**1100**		5.0	2.6	mg/L			09/24/24 20:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**1100**		5.0	2.6	mg/L			09/24/24 20:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/24/24 20:09	1
Chloride (EPA 300.0)	**7400**		100	13	mg/L			10/09/24 10:12	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/09/24 10:12	100
Sulfate (EPA 300.0)	**2800**		100	35	mg/L			10/09/24 10:12	100
Total Dissolved Solids (SM 2540C)	**9600**		50	39	mg/L			09/25/24 13:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.418**		0.216	0.219	1.00	0.287	pCi/L	09/26/24 08:25	10/19/24 12:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:15*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.192	U	0.444	0.444	1.00	0.782	pCi/L	09/26/24 08:37	10/16/24 12:16	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: MW-17-F-20240919-01
Date Collected: 09/19/24 11:32
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*
Y Carrier	*74.4*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.610	U	0.494	0.495	5.00	0.782	pCi/L		10/24/24 06:52	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: DUP-002-F-20240919-01

Date Collected: 09/19/24 00:00
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	910		100	57	ug/L		09/24/24 14:00	09/25/24 20:03	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.71	J	2.0	0.57	ug/L		09/24/24 14:00	09/26/24 01:02	1
Arsenic	27		5.0	0.75	ug/L		09/24/24 14:00	09/26/24 01:02	1
Barium	200		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 01:02	1
Beryllium	0.40	J	1.0	0.27	ug/L		09/24/24 14:00	09/26/24 01:02	1
Cadmium	0.23	J	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 01:02	1
Calcium	330000		1000	250	ug/L		09/24/24 14:00	09/26/24 01:02	1
Chromium	ND		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 01:02	1
Cobalt	1.5		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 01:02	1
Lead	ND		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 01:02	1
Lithium	170		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 01:02	1
Magnesium	90000		1000	61	ug/L		09/24/24 14:00	09/26/24 01:02	1
Molybdenum	11		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 01:02	1
Potassium	9100		1000	220	ug/L		09/24/24 14:00	09/26/24 01:02	1
Selenium	6.5		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 01:02	1
Sodium	4400000		10000	8800	ug/L		09/24/24 14:00	09/27/24 16:16	10
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 01:02	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 10:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	1100		5.0	2.6	mg/L			09/24/24 20:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	1100		5.0	2.6	mg/L			09/24/24 20:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/24/24 20:18	1
Chloride (EPA 300.0)	7000		100	13	mg/L			10/09/24 10:32	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/09/24 10:32	100
Sulfate (EPA 300.0)	2700		100	35	mg/L			10/09/24 10:32	100
Total Dissolved Solids (SM 2540C)	9500		50	39	mg/L			09/25/24 13:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.562		0.186	0.193	1.00	0.189	pCi/L	09/26/24 08:25	10/19/24 12:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:15*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.632	U	0.439	0.443	1.00	0.665	pCi/L	09/26/24 08:37	10/16/24 12:16	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: DUP-002-F-20240919-01

Date Collected: 09/19/24 00:00
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-2

Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.8*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*
Y Carrier	*76.6*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.19**		0.477	0.483	5.00	0.665	pCi/L		10/24/24 06:52	1

Client Sample ID: 2023-F-20240919-01
Date Collected: 09/19/24 13:47
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	460		100	57	ug/L		09/24/24 14:00	09/25/24 20:07	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.67	J	2.0	0.57	ug/L		09/24/24 14:00	09/26/24 01:05	1
Arsenic	28		5.0	0.75	ug/L		09/24/24 14:00	09/26/24 01:05	1
Barium	130		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 01:05	1
Beryllium	0.36	J	1.0	0.27	ug/L		09/24/24 14:00	09/26/24 01:05	1
Cadmium	0.17	J	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 01:05	1
Calcium	7700		1000	250	ug/L		09/24/24 14:00	09/26/24 01:05	1
Chromium	8.8		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 01:05	1
Cobalt	2.7		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 01:05	1
Lead	1.8		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 01:05	1
Lithium	23		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 01:05	1
Magnesium	2100		1000	61	ug/L		09/24/24 14:00	09/26/24 01:05	1
Molybdenum	130		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 01:05	1
Potassium	2500		1000	220	ug/L		09/24/24 14:00	09/26/24 01:05	1
Selenium	7.1		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 01:05	1
Sodium	620000		1000	880	ug/L		09/24/24 14:00	09/26/24 01:05	1
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 01:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	800		5.0	2.6	mg/L			09/24/24 20:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	800		5.0	2.6	mg/L			09/24/24 20:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/24/24 20:28	1
Chloride (EPA 300.0)	350		2.0	0.26	mg/L			10/09/24 10:51	2
Fluoride (EPA 300.0)	3.8		0.10	0.048	mg/L			10/09/24 10:51	2
Sulfate (EPA 300.0)	61		2.0	0.70	mg/L			10/09/24 10:51	2
Total Dissolved Solids (SM 2540C)	1500		20	16	mg/L			09/25/24 13:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.586		0.258	0.264	1.00	0.281	pCi/L	09/26/24 08:25	10/19/24 12:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:16*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.25	G	0.825	0.833	1.00	1.24	pCi/L	09/26/24 08:37	10/16/24 12:16	1

Client Sample ID: 2023-F-20240919-01
Date Collected: 09/19/24 13:47
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*
Y Carrier	*80.0*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.83**		0.864	0.874	5.00	1.24	pCi/L		10/24/24 06:52	1

Client Sample ID: 93108-F-20240919-01
Date Collected: 09/19/24 15:07
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	440		100	57	ug/L		09/24/24 14:00	09/25/24 20:11	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 01:07	1
Arsenic	4.4	J	5.0	0.75	ug/L		09/24/24 14:00	09/26/24 01:07	1
Barium	530		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 01:07	1
Beryllium	ND		1.0	0.27	ug/L		09/24/24 14:00	09/26/24 01:07	1
Cadmium	0.13	J	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 01:07	1
Calcium	19000		1000	250	ug/L		09/24/24 14:00	09/26/24 01:07	1
Chromium	ND		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 01:07	1
Cobalt	0.094	J	1.0	0.086	ug/L		09/24/24 14:00	09/26/24 01:07	1
Lead	ND		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 01:07	1
Lithium	42		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 01:07	1
Magnesium	5300		1000	61	ug/L		09/24/24 14:00	09/26/24 01:07	1
Molybdenum	88		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 01:07	1
Potassium	2400		1000	220	ug/L		09/24/24 14:00	09/26/24 01:07	1
Selenium	1.3	J	5.0	0.89	ug/L		09/24/24 14:00	09/26/24 01:07	1
Sodium	1400000		10000	8800	ug/L		09/24/24 14:00	09/27/24 16:20	10
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 01:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 11:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	450		5.0	2.6	mg/L			09/24/24 20:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	450		5.0	2.6	mg/L			09/24/24 20:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/24/24 20:36	1
Chloride (EPA 300.0)	2000		50	6.4	mg/L			10/09/24 12:30	50
Fluoride (EPA 300.0)	2.7		0.25	0.12	mg/L			10/09/24 12:10	5
Sulfate (EPA 300.0)	17		5.0	1.7	mg/L			10/09/24 12:10	5
Total Dissolved Solids (SM 2540C)	3400		50	39	mg/L			09/25/24 13:43	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.559		0.174	0.181	1.00	0.162	pCi/L	09/26/24 08:25	10/19/24 12:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:17*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.614		0.396	0.400	1.00	0.587	pCi/L	09/26/24 08:37	10/16/24 12:16	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: 93108-F-20240919-01
Date Collected: 09/19/24 15:07
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-4
Matrix: Water

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.8		30 - 110	09/26/24 08:37	10/16/24 12:16	1
Y Carrier	75.5		30 - 110	09/26/24 08:37	10/16/24 12:16	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.17		0.433	0.439	5.00	0.587	pCi/L		10/24/24 06:52	1

Client Sample ID: 9631-F-F20240920-01

Date Collected: 09/20/24 13:29
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**370**		100	57	ug/L		09/24/24 14:00	09/25/24 20:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 01:15	1
Arsenic	**2.6**	**J**	5.0	0.75	ug/L		09/24/24 14:00	09/26/24 01:15	1
Barium	**35000**		250	39	ug/L		09/24/24 14:00	09/27/24 16:25	50
Beryllium	ND		1.0	0.27	ug/L		09/24/24 14:00	09/26/24 01:15	1
Cadmium	**0.16**	**J**	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 01:15	1
Calcium	**1400000**		50000	13000	ug/L		09/24/24 14:00	09/27/24 16:25	50
Chromium	**4.6**	**J**	5.0	1.2	ug/L		09/24/24 14:00	09/26/24 01:15	1
Cobalt	**2.3**		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 01:15	1
Lead	**0.79**	**J**	1.0	0.45	ug/L		09/24/24 14:00	09/26/24 01:15	1
Lithium	**340**		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 01:15	1
Magnesium	**490000**		1000	61	ug/L		09/24/24 14:00	09/26/24 01:15	1
Molybdenum	**3.6**	**J**	5.0	1.1	ug/L		09/24/24 14:00	09/26/24 01:15	1
Potassium	**25000**		1000	220	ug/L		09/24/24 14:00	09/26/24 01:15	1
Selenium	**1.4**	**J**	5.0	0.89	ug/L		09/24/24 14:00	09/26/24 01:15	1
Sodium	**13000000**		50000	44000	ug/L		09/24/24 14:00	09/27/24 16:25	50
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 01:15	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**70**		5.0	2.6	mg/L			09/24/24 20:43	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**70**		5.0	2.6	mg/L			09/24/24 20:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/24/24 20:43	1
Chloride (EPA 300.0)	**29000**		1000	130	mg/L			10/09/24 13:09	1000
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/09/24 12:50	100
Sulfate (EPA 300.0)	ND		100	35	mg/L			10/09/24 12:50	100
Total Dissolved Solids (SM 2540C)	**41000**		1000	780	mg/L			09/27/24 12:56	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**32.8**		1.33	3.24	1.00	0.191	pCi/L	09/26/24 08:25	10/19/24 12:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*170*	*X*	*30 - 110*	*09/26/24 08:25*	*10/19/24 12:17*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**73.1**		2.52	7.18	1.00	0.546	pCi/L	09/26/24 08:37	10/16/24 12:17	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: 9631-F-F20240920-01
Date Collected: 09/20/24 13:29
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*294*	*X*	*30 - 110*	*09/26/24 08:37*	*10/16/24 12:17*	*1*
Y Carrier	*78.5*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:17*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**106**		2.85	7.88	5.00	0.546	pCi/L		10/24/24 06:52	1

Client Sample ID: 94139-F-20240920-01
Date Collected: 09/20/24 15:29
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-6
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	490		100	57	ug/L		09/24/24 14:00	09/25/24 20:20	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 01:18	1
Arsenic	4.9	J	5.0	0.75	ug/L		09/24/24 14:00	09/26/24 01:18	1
Barium	110		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 01:18	1
Beryllium	ND		1.0	0.27	ug/L		09/24/24 14:00	09/26/24 01:18	1
Cadmium	0.13	J	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 01:18	1
Calcium	8600		1000	250	ug/L		09/24/24 14:00	09/26/24 01:18	1
Chromium	14		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 01:18	1
Cobalt	0.95	J	1.0	0.086	ug/L		09/24/24 14:00	09/26/24 01:18	1
Lead	1.3		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 01:18	1
Lithium	18		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 01:18	1
Magnesium	2600		1000	61	ug/L		09/24/24 14:00	09/26/24 01:18	1
Molybdenum	190		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 01:18	1
Potassium	2000		1000	220	ug/L		09/24/24 14:00	09/26/24 01:18	1
Selenium	ND		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 01:18	1
Sodium	570000		1000	880	ug/L		09/24/24 14:00	09/26/24 01:18	1
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 01:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	500		5.0	2.6	mg/L			09/24/24 20:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	480		5.0	2.6	mg/L			09/24/24 20:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	24		5.0	2.6	mg/L			09/24/24 20:50	1
Chloride (EPA 300.0)	500		20	2.6	mg/L			10/09/24 13:49	20
Fluoride (EPA 300.0)	4.9		0.10	0.048	mg/L			10/09/24 13:29	2
Sulfate (EPA 300.0)	64		2.0	0.70	mg/L			10/09/24 13:29	2
Total Dissolved Solids (SM 2540C)	1400		20	16	mg/L			09/26/24 08:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.300		0.177	0.180	1.00	0.224	pCi/L	09/26/24 08:25	10/19/24 12:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:17*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.329	U G	0.605	0.606	1.00	1.04	pCi/L	09/26/24 08:37	10/16/24 12:17	1

Client Sample ID: 94139-F-20240920-01
Date Collected: 09/20/24 15:29
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-6
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:17*	*1*
Y Carrier	*77.0*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:17*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.629	U	0.630	0.632	5.00	1.04	pCi/L		10/24/24 06:52	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211719-1	MW-17-F-20240919-01	89.8
240-211719-2	DUP-002-F-20240919-01	86.8
240-211719-3	2023-F-20240919-01	95.3
240-211719-4	93108-F-20240919-01	95.8
240-211719-5	9631-F-F20240920-01	170 X
240-211719-6	94139-F-20240920-01	79.2
240-211719-6 DU	94139-F-20240920-01	80.6
LCS 160-681025/2-A	Lab Control Sample	99.5
MB 160-681025/1-A	Method Blank	90.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211719-1	MW-17-F-20240919-01	89.8	74.4
240-211719-2	DUP-002-F-20240919-01	86.8	76.6
240-211719-3	2023-F-20240919-01	95.3	80.0
240-211719-4	93108-F-20240919-01	95.8	75.5
240-211719-5	9631-F-F20240920-01	294 X	78.5
240-211719-6	94139-F-20240920-01	79.2	77.0
240-211719-6 DU	94139-F-20240920-01	80.6	85.2
LCS 160-681026/2-A	Lab Control Sample	99.5	78.9
MB 160-681026/1-A	Method Blank	90.3	77.8

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-628191/1-A
Matrix: Water
Analysis Batch: 628488

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/24/24 14:00	09/25/24 19:16	1

Lab Sample ID: LCS 240-628191/2-A
Matrix: Water
Analysis Batch: 628488

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	986		ug/L		99	80 - 120		

Lab Sample ID: 240-211719-1 MS
Matrix: Water
Analysis Batch: 628488

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	880		1000	1880		ug/L		101	75 - 125		

Lab Sample ID: 240-211719-1 MSD
Matrix: Water
Analysis Batch: 628488

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	880		1000	1870		ug/L		99	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-628191/1-A
Matrix: Water
Analysis Batch: 628494

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 00:43	1
Arsenic	ND		5.0	0.75	ug/L		09/24/24 14:00	09/26/24 00:43	1
Barium	ND		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 00:43	1
Beryllium	ND		1.0	0.27	ug/L		09/24/24 14:00	09/26/24 00:43	1
Cadmium	ND		1.0	0.077	ug/L		09/24/24 14:00	09/26/24 00:43	1
Calcium	ND		1000	250	ug/L		09/24/24 14:00	09/26/24 00:43	1
Chromium	ND		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 00:43	1
Cobalt	ND		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 00:43	1
Lead	ND		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 00:43	1
Lithium	ND		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 00:43	1
Magnesium	ND		1000	61	ug/L		09/24/24 14:00	09/26/24 00:43	1
Molybdenum	ND		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 00:43	1
Potassium	ND		1000	220	ug/L		09/24/24 14:00	09/26/24 00:43	1
Selenium	ND		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 00:43	1
Sodium	ND		1000	880	ug/L		09/24/24 14:00	09/26/24 00:43	1
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 00:43	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-628191/3-A
Matrix: Water
Analysis Batch: 628494

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.6		ug/L		99	80 - 120
Arsenic	1000	987		ug/L		99	80 - 120
Barium	1000	961		ug/L		96	80 - 120
Beryllium	500	473		ug/L		95	80 - 120
Cadmium	500	477		ug/L		95	80 - 120
Calcium	25000	24800		ug/L		99	80 - 120
Chromium	500	472		ug/L		94	80 - 120
Cobalt	500	486		ug/L		97	80 - 120
Lead	500	451		ug/L		90	80 - 120
Lithium	500	474		ug/L		95	80 - 120
Magnesium	25000	25100		ug/L		100	80 - 120
Molybdenum	500	489		ug/L		98	80 - 120
Potassium	25000	26100		ug/L		105	80 - 120
Selenium	1000	898		ug/L		90	80 - 120
Sodium	25000	25600		ug/L		102	80 - 120
Thallium	1000	1120		ug/L		112	80 - 120

Lab Sample ID: 240-211719-1 MS
Matrix: Water
Analysis Batch: 628494

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	103		ug/L		103	80 - 120
Arsenic	25		1000	1210		ug/L		119	80 - 120
Barium	230		1000	1220		ug/L		99	80 - 120
Beryllium	0.31	J	500	497		ug/L		99	80 - 120
Cadmium	0.11	J	500	451		ug/L		90	80 - 120
Calcium	300000		25000	321000	4	ug/L		103	80 - 120
Chromium	ND		500	456		ug/L		91	80 - 120
Cobalt	1.3		500	566		ug/L		113	80 - 120
Lead	ND		500	424		ug/L		85	80 - 120
Lithium	160		500	665		ug/L		101	80 - 120
Magnesium	84000		25000	105000		ug/L		83	80 - 120
Molybdenum	11		500	579		ug/L		114	80 - 120
Potassium	8900		25000	36200		ug/L		109	80 - 120
Selenium	5.9		1000	939		ug/L		93	80 - 120
Thallium	ND		1000	834		ug/L		83	80 - 120

Lab Sample ID: 240-211719-1 MS
Matrix: Water
Analysis Batch: 628800

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	4500000		25000	4210000	4	ug/L		-1016	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-211719-1 MSD
Matrix: Water
Analysis Batch: 628494

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	103		ug/L		103	80 - 120	1	20
Arsenic	25		1000	1210		ug/L		119	80 - 120	0	20
Barium	230		1000	1210		ug/L		98	80 - 120	1	20
Beryllium	0.31	J	500	452		ug/L		90	80 - 120	10	20
Cadmium	0.11	J	500	453		ug/L		90	80 - 120	0	20
Calcium	300000		25000	326000	4	ug/L		126	80 - 120	2	20
Chromium	ND		500	454		ug/L		91	80 - 120	0	20
Cobalt	1.3		500	568		ug/L		113	80 - 120	0	20
Lead	ND		500	429		ug/L		86	80 - 120	1	20
Lithium	160		500	610		ug/L		90	80 - 120	9	20
Magnesium	84000		25000	107000		ug/L		88	80 - 120	1	20
Molybdenum	11		500	574		ug/L		113	80 - 120	1	20
Potassium	8900		25000	36400		ug/L		110	80 - 120	0	20
Selenium	5.9		1000	957		ug/L		95	80 - 120	2	20
Thallium	ND		1000	844		ug/L		84	80 - 120	1	20

Lab Sample ID: 240-211719-1 MSD
Matrix: Water
Analysis Batch: 628800

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sodium	4500000		25000	4130000	4	ug/L		-1313	80 - 120	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-628196/1-A
Matrix: Water
Analysis Batch: 628609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 10:42	1

Lab Sample ID: LCS 240-628196/2-A
Matrix: Water
Analysis Batch: 628609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.97		ug/L		99	80 - 120

Lab Sample ID: 240-211719-1 MS
Matrix: Water
Analysis Batch: 628609

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total/NA
Prep Batch: 628196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.931		ug/L		93	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 240-211719-1 MSD
Matrix: Water
Analysis Batch: 628609

Client Sample ID: MW-17-F-20240919-01
Prep Type: Total/NA
Prep Batch: 628196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.913		ug/L		91	80 - 120	2	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-628614/4
Matrix: Water
Analysis Batch: 628614

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/24/24 18:45	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/24/24 18:45	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/24/24 18:45	1

Lab Sample ID: LCS 240-628614/3
Matrix: Water
Analysis Batch: 628614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	270		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-629940/3
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 03:57	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 03:57	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 03:57	1

Lab Sample ID: LCS 240-629940/4
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.9		mg/L		102	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-628431/1
Matrix: Water
Analysis Batch: 628431

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/25/24 13:43	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-628431/2
Matrix: Water
Analysis Batch: 628431

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	671		mg/L		93	80 - 120		

Lab Sample ID: MB 240-628502/1
Matrix: Water
Analysis Batch: 628502

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/26/24 08:39	1

Lab Sample ID: LCS 240-628502/2
Matrix: Water
Analysis Batch: 628502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	673		mg/L		93	80 - 120		

Lab Sample ID: MB 240-628683/1
Matrix: Water
Analysis Batch: 628683

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/27/24 08:33	1

Lab Sample ID: LCS 240-628683/2
Matrix: Water
Analysis Batch: 628683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			721	633		mg/L		88	80 - 120		

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-681025/1-A
Matrix: Water
Analysis Batch: 684301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681025

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2781		0.135	0.137	1.00	0.157	pCi/L	09/26/24 08:25	10/19/24 12:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:15*	*1*

Lab Sample ID: LCS 160-681025/2-A
Matrix: Water
Analysis Batch: 684301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681025

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.315		1.05	1.00	0.139	pCi/L	97	75 - 125		

Method: 9315 - Radium 226 by GFPC (Continued)

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.5		30 - 110

Lab Sample ID: 240-211719-6 DU
Matrix: Water
Analysis Batch: 684301

Client Sample ID: 94139-F-20240920-01
Prep Type: Total/NA
Prep Batch: 681025

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.300			0.2848		0.162	1.00	0.188	pCi/L			0.04	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	80.6		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-681026/1-A
Matrix: Water
Analysis Batch: 683772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681026

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4748	U	0.388	0.391	1.00	0.605	pCi/L	09/26/24 08:37	10/16/24 12:16	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		30 - 110	09/26/24 08:37	10/16/24 12:16	1
Y Carrier	77.8		30 - 110	09/26/24 08:37	10/16/24 12:16	1

Lab Sample ID: LCS 160-681026/2-A
Matrix: Water
Analysis Batch: 683772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681026

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.42	7.863		1.13	1.00	0.508	pCi/L	93	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.5		30 - 110
Y Carrier	78.9		30 - 110

Lab Sample ID: 240-211719-6 DU
Matrix: Water
Analysis Batch: 683772

Client Sample ID: 94139-F-20240920-01
Prep Type: Total/NA
Prep Batch: 681026

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.329	U G		0.05285	U	0.484	1.00	0.884	pCi/L			0.25	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	80.6		30 - 110
Y Carrier	85.2		30 - 110

Metals

Prep Batch: 628191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-2	DUP-002-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-3	2023-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-4	93108-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-5	9631-F-F20240920-01	Total Recoverable	Water	3005A	
240-211719-6	94139-F-20240920-01	Total Recoverable	Water	3005A	
MB 240-628191/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-628191/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-628191/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-211719-1 MS	MW-17-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-1 MS	MW-17-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-1 MSD	MW-17-F-20240919-01	Total Recoverable	Water	3005A	
240-211719-1 MSD	MW-17-F-20240919-01	Total Recoverable	Water	3005A	

Prep Batch: 628196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	7470A	
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	7470A	
240-211719-3	2023-F-20240919-01	Total/NA	Water	7470A	
240-211719-4	93108-F-20240919-01	Total/NA	Water	7470A	
240-211719-5	9631-F-F20240920-01	Total/NA	Water	7470A	
240-211719-6	94139-F-20240920-01	Total/NA	Water	7470A	
MB 240-628196/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-628196/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-211719-1 MS	MW-17-F-20240919-01	Total/NA	Water	7470A	
240-211719-1 MSD	MW-17-F-20240919-01	Total/NA	Water	7470A	

Analysis Batch: 628488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total Recoverable	Water	6010D	628191
240-211719-2	DUP-002-F-20240919-01	Total Recoverable	Water	6010D	628191
240-211719-3	2023-F-20240919-01	Total Recoverable	Water	6010D	628191
240-211719-4	93108-F-20240919-01	Total Recoverable	Water	6010D	628191
240-211719-5	9631-F-F20240920-01	Total Recoverable	Water	6010D	628191
240-211719-6	94139-F-20240920-01	Total Recoverable	Water	6010D	628191
MB 240-628191/1-A	Method Blank	Total Recoverable	Water	6010D	628191
LCS 240-628191/2-A	Lab Control Sample	Total Recoverable	Water	6010D	628191
240-211719-1 MS	MW-17-F-20240919-01	Total Recoverable	Water	6010D	628191
240-211719-1 MSD	MW-17-F-20240919-01	Total Recoverable	Water	6010D	628191

Analysis Batch: 628494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-2	DUP-002-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-3	2023-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-4	93108-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-5	9631-F-F20240920-01	Total Recoverable	Water	6020B	628191
240-211719-6	94139-F-20240920-01	Total Recoverable	Water	6020B	628191
MB 240-628191/1-A	Method Blank	Total Recoverable	Water	6020B	628191
LCS 240-628191/3-A	Lab Control Sample	Total Recoverable	Water	6020B	628191
240-211719-1 MS	MW-17-F-20240919-01	Total Recoverable	Water	6020B	628191

Metals (Continued)

Analysis Batch: 628494 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1 MSD	MW-17-F-20240919-01	Total Recoverable	Water	6020B	628191

Analysis Batch: 628609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	7470A	628196
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	7470A	628196
240-211719-3	2023-F-20240919-01	Total/NA	Water	7470A	628196
240-211719-4	93108-F-20240919-01	Total/NA	Water	7470A	628196
240-211719-5	9631-F-F20240920-01	Total/NA	Water	7470A	628196
240-211719-6	94139-F-20240920-01	Total/NA	Water	7470A	628196
MB 240-628196/1-A	Method Blank	Total/NA	Water	7470A	628196
LCS 240-628196/2-A	Lab Control Sample	Total/NA	Water	7470A	628196
240-211719-1 MS	MW-17-F-20240919-01	Total/NA	Water	7470A	628196
240-211719-1 MSD	MW-17-F-20240919-01	Total/NA	Water	7470A	628196

Analysis Batch: 628800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-2	DUP-002-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-4	93108-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-5	9631-F-F20240920-01	Total Recoverable	Water	6020B	628191
240-211719-1 MS	MW-17-F-20240919-01	Total Recoverable	Water	6020B	628191
240-211719-1 MSD	MW-17-F-20240919-01	Total Recoverable	Water	6020B	628191

General Chemistry

Analysis Batch: 628431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	SM 2540C	
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	SM 2540C	
240-211719-3	2023-F-20240919-01	Total/NA	Water	SM 2540C	
240-211719-4	93108-F-20240919-01	Total/NA	Water	SM 2540C	
MB 240-628431/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628431/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-6	94139-F-20240920-01	Total/NA	Water	SM 2540C	
MB 240-628502/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628502/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	2320B-1997	
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	2320B-1997	
240-211719-3	2023-F-20240919-01	Total/NA	Water	2320B-1997	
240-211719-4	93108-F-20240919-01	Total/NA	Water	2320B-1997	
240-211719-5	9631-F-F20240920-01	Total/NA	Water	2320B-1997	
240-211719-6	94139-F-20240920-01	Total/NA	Water	2320B-1997	
MB 240-628614/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-628614/3	Lab Control Sample	Total/NA	Water	2320B-1997	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

General Chemistry

Analysis Batch: 628683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-5	9631-F-F20240920-01	Total/NA	Water	SM 2540C	
MB 240-628683/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628683/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	300.0	
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	300.0	
240-211719-3	2023-F-20240919-01	Total/NA	Water	300.0	
240-211719-4	93108-F-20240919-01	Total/NA	Water	300.0	
240-211719-4	93108-F-20240919-01	Total/NA	Water	300.0	
240-211719-5	9631-F-F20240920-01	Total/NA	Water	300.0	
240-211719-5	9631-F-F20240920-01	Total/NA	Water	300.0	
240-211719-6	94139-F-20240920-01	Total/NA	Water	300.0	
240-211719-6	94139-F-20240920-01	Total/NA	Water	300.0	
MB 240-629940/3	Method Blank	Total/NA	Water	300.0	
LCS 240-629940/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 681025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	PrecSep-21	
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	PrecSep-21	
240-211719-3	2023-F-20240919-01	Total/NA	Water	PrecSep-21	
240-211719-4	93108-F-20240919-01	Total/NA	Water	PrecSep-21	
240-211719-5	9631-F-F20240920-01	Total/NA	Water	PrecSep-21	
240-211719-6	94139-F-20240920-01	Total/NA	Water	PrecSep-21	
MB 160-681025/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-681025/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-211719-6 DU	94139-F-20240920-01	Total/NA	Water	PrecSep-21	

Prep Batch: 681026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211719-1	MW-17-F-20240919-01	Total/NA	Water	PrecSep_0	
240-211719-2	DUP-002-F-20240919-01	Total/NA	Water	PrecSep_0	
240-211719-3	2023-F-20240919-01	Total/NA	Water	PrecSep_0	
240-211719-4	93108-F-20240919-01	Total/NA	Water	PrecSep_0	
240-211719-5	9631-F-F20240920-01	Total/NA	Water	PrecSep_0	
240-211719-6	94139-F-20240920-01	Total/NA	Water	PrecSep_0	
MB 160-681026/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-681026/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-211719-6 DU	94139-F-20240920-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211719-1
Project/Site: Gavin CCR

Client Sample ID: MW-17-F-20240919-01
Lab Sample ID: 240-211719-1

Date Collected: 09/19/24 11:32
Matrix: Water
Date Received: 09/24/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 19:24
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		10	628800	AJC	EET CLE	09/27/24 15:57
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 00:48
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 10:46
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:09
Total/NA	Analysis	300.0		100	629940	JMR	EET CLE	10/09/24 10:12
Total/NA	Analysis	SM 2540C		1	628431	TAV2	EET CLE	09/25/24 13:43
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:15
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:16
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Client Sample ID: DUP-002-F-20240919-01
Lab Sample ID: 240-211719-2

Date Collected: 09/19/24 00:00
Matrix: Water
Date Received: 09/24/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 20:03
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		10	628800	AJC	EET CLE	09/27/24 16:16
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 01:02
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 10:58
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:18
Total/NA	Analysis	300.0		100	629940	JMR	EET CLE	10/09/24 10:32
Total/NA	Analysis	SM 2540C		1	628431	TAV2	EET CLE	09/25/24 13:43
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:15
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:16
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211719-1
Project/Site: Gavin CCR

Client Sample ID: 2023-F-20240919-01
Lab Sample ID: 240-211719-3

Date Collected: 09/19/24 13:47
Matrix: Water
Date Received: 09/24/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 20:07
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 01:05
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 11:00
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:28
Total/NA	Analysis	300.0		2	629940	JMR	EET CLE	10/09/24 10:51
Total/NA	Analysis	SM 2540C		1	628431	TAV2	EET CLE	09/25/24 13:43
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:16
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:16
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Client Sample ID: 93108-F-20240919-01
Lab Sample ID: 240-211719-4

Date Collected: 09/19/24 15:07
Matrix: Water
Date Received: 09/24/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 20:11
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		10	628800	AJC	EET CLE	09/27/24 16:20
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 01:07
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 11:01
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:36
Total/NA	Analysis	300.0		5	629940	JMR	EET CLE	10/09/24 12:10
Total/NA	Analysis	300.0		50	629940	JMR	EET CLE	10/09/24 12:30
Total/NA	Analysis	SM 2540C		1	628431	TAV2	EET CLE	09/25/24 13:43
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:17
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:16
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211719-1

Client Sample ID: 9631-F-F20240920-01

Date Collected: 09/20/24 13:29
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 20:16
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		50	628800	AJC	EET CLE	09/27/24 16:25
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 01:15
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 11:03
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:43
Total/NA	Analysis	300.0		100	629940	JMR	EET CLE	10/09/24 12:50
Total/NA	Analysis	300.0		1000	629940	JMR	EET CLE	10/09/24 13:09
Total/NA	Analysis	SM 2540C		1	628683	TAV2	EET CLE	09/27/24 12:56
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:17
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:17
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Client Sample ID: 94139-F-20240920-01

Date Collected: 09/20/24 15:29
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211719-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 20:20
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 01:18
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 11:05
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:50
Total/NA	Analysis	300.0		2	629940	JMR	EET CLE	10/09/24 13:29
Total/NA	Analysis	300.0		20	629940	JMR	EET CLE	10/09/24 13:49
Total/NA	Analysis	SM 2540C		1	628502	TAV2	EET CLE	09/26/24 08:39
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:17
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:17
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211719-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211719-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus
209

eurofins
Environment Testing

Client Information	Sampler: Bobby Custer	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4388	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
MW-17-F-20240919-01	9-19-24	1132	G	Water	N		1	1	2	1	1		
DUP-002-F-20240919-01	9-19-24	—	G	Water	N		1	1	2	1	1		
2003-F-20240919-01	9-19-24	1347	G	Water	N		1	1	2	1	1		
93108-F-20240919-01	9-19-24	1507	G	Water	N		1	1	2	1	1		
9631-F-20240920-01	9-20-24	1329	G	Water	N		1	1	2	1	1		
94139-F-20240920-01	9-20-24	1529	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									

240-211719 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Custer	9-23-24/0918	KEMRON	Ken Mosher	09/23/2024 1:43	Eurofins
Relinquished by:	Date/Time:	Company	Received by: MALISSA LOAR	Date/Time: 9-24-24 8 AM	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client LIGHTSTONE Site Name _____ Cooler unpacked by: MALISSA LOAR

Cooler Received on 9.24.24 Opened on 9.24.24

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 22 Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ~~See Multiple Cooler Form~~

IR GUN # _____ (CF _____ °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(N) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12 Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14 Were VOAs on the COC?	(Yes)	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No (NA)
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved: _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	2.2	2.1	Wet Ice Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.8	1.7	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	

9/24/2024

Login Container Summary Report

240-211719

10/25/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
MW-17-F-20240919-01	240-211719-A-1	Plastic 60 mL - unpreserved				
MW-17-F-20240919-01	240-211719-B-1	Plastic 60 mL - unpreserved				
MW-17-F-20240919-01	240-211719-C-1	Plastic 500ml - unpreserved				
MW-17-F-20240919-01	240-211719-D-1	Plastic 500ml - with Nitric Acid	<2			
MW-17-F-20240919-01	240-211719-G-1	Plastic 1 liter - Nitric Acid	<2			
MW-17-F-20240919-01	240-211719-H-1	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-20240919-01	240-211719-A-2	Plastic 60 mL - unpreserved				
DUP-002-F-20240919-01	240-211719-B-2	Plastic 60 mL - unpreserved				
DUP-002-F-20240919-01	240-211719-C-2	Plastic 500ml - unpreserved				
DUP-002-F-20240919-01	240-211719-D-2	Plastic 500ml - with Nitric Acid	<2			
DUP-002-F-20240919-01	240-211719-E-2	Plastic 1 liter - Nitric Acid	<2			
DUP-002-F-20240919-01	240-211719-F-2	Plastic 1 liter - Nitric Acid	<2			
2023-F-20240919-01	240-211719-A-3	Plastic 60 mL - unpreserved				
2023-F-20240919-01	240-211719-B-3	Plastic 60 mL - unpreserved				
2023-F-20240919-01	240-211719-C-3	Plastic 500ml - unpreserved				
2023-F-20240919-01	240-211719-D-3	Plastic 500ml - with Nitric Acid	<2			
2023-F-20240919-01	240-211719-E-3	Plastic 1 liter - Nitric Acid	<2			
2023-F-20240919-01	240-211719-F-3	Plastic 1 liter - Nitric Acid	<2			
93108-F-20240919-01	240-211719-A-4	Plastic 60 mL - unpreserved				
93108-F-20240919-01	240-211719-B-4	Plastic 60 mL - unpreserved				
93108-F-20240919-01	240-211719-C-4	Plastic 500ml - unpreserved				
93108-F-20240919-01	240-211719-D-4	Plastic 500ml - with Nitric Acid	<2			
93108-F-20240919-01	240-211719-E-4	Plastic 1 liter - Nitric Acid	<2			
93108-F-20240919-01	240-211719-F-4	Plastic 1 liter - Nitric Acid	<2			
9631-F-F20240920-01	240-211719-A-5	Plastic 60 mL - unpreserved				
9631-F-F20240920-01	240-211719-B-5	Plastic 60 mL - unpreserved				
9631-F-F20240920-01	240-211719-C-5	Plastic 500ml - unpreserved				
9631-F-F20240920-01	240-211719-D-5	Plastic 500ml - with Nitric Acid	<2			
9631-F-F20240920-01	240-211719-E-5	Plastic 1 liter - Nitric Acid	<2			
9631-F-F20240920-01	240-211719-F-5	Plastic 1 liter - Nitric Acid	<2			
94139-F-20240920-01	240-211719-A-6	Plastic 60 mL - unpreserved				
94139-F-20240920-01	240-211719-B-6	Plastic 60 mL - unpreserved				
94139-F-20240920-01	240-211719-C-6	Plastic 500ml - unpreserved				
94139-F-20240920-01	240-211719-D-6	Plastic 500ml - with Nitric Acid	<2			
94139-F-20240920-01	240-211719-E-6	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
94139-F-20240920-01	240-211719-F-6	Plastic 1 liter - Nitric Acid	<2			

10/25/2024

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191100.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211719-1
Address: 13715 Rider Trail North,	Due Date Requested: 10/24/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-17-F-20240919-01 (240-211719-1)	9/19/24	11:32 Eastern	G	Water			X	X	X	2	
DUP-002-F-20240919-01 (240-211719-2)	9/19/24	Eastern	G	Water			X	X	X	2	
2023-F-20240919-01 (240-211719-3)	9/19/24	13:47 Eastern	G	Water			X	X	X	2	
93108-F-20240919-01 (240-211719-4)	9/19/24	15:07 Eastern	G	Water			X	X	X	2	
9631-F-F20240920-01 (240-211719-5)	9/20/24	13:29 Eastern	G	Water			X	X	X	2	
94139-F-20240920-01 (240-211719-6)	9/20/24	15:29 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by: MALISSA LOAR	Date/Time: 9-24-24	Company	Received by: Sierra Worthington	Date/Time: SEP 25 2024 0905	Company: GTSL
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/25/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211719-1

Login Number: 211719
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/25/24 01:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/25/2024 12:19:10 AM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-211720-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/25/2024 12:19:10 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211720-1 — Eurofins Cleveland

Job Narrative
240-211720-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 9/24/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7°C and 2.1°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 batch 681026
The detection goal was not met for the following samples due to the reduced sample volume used in prep attributed to the presence of matrix interferences: 2016-06-F-20240920-01 (240-211720-1) and (240-211719-E-6-B). Analytical results are reported with the detection limit achieved.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211720-1	2016-06-F-20240920-01	Water	09/20/24 11:15	09/24/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Client Sample ID: 2016-06-F-20240920-01

Lab Sample ID: 240-211720-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	71		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.13	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	5600		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	11		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.1		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	1.4		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	22		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	1800		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	57		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	670000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	460		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	31		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	640		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	5.7		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	97		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	2600		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2016-06-F-20240920-01
Date Collected: 09/20/24 11:15
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211720-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		09/24/24 14:00	09/25/24 20:25	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 01:20	1
Arsenic	2.3	J	5.0	0.75	ug/L		09/24/24 14:00	09/26/24 01:20	1
Barium	71		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 01:20	1
Beryllium	ND		1.0	0.27	ug/L		09/24/24 14:00	09/26/24 01:20	1
Cadmium	0.13	J	1.0	0.077	ug/L		09/24/24 14:00	09/26/24 01:20	1
Calcium	5600		1000	250	ug/L		09/24/24 14:00	09/26/24 01:20	1
Chromium	11		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 01:20	1
Cobalt	1.1		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 01:20	1
Lead	1.4		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 01:20	1
Lithium	22		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 01:20	1
Magnesium	1800		1000	61	ug/L		09/24/24 14:00	09/26/24 01:20	1
Molybdenum	57		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 01:20	1
Potassium	2700		1000	220	ug/L		09/24/24 14:00	09/26/24 01:20	1
Selenium	ND		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 01:20	1
Sodium	670000		1000	880	ug/L		09/24/24 14:00	09/26/24 01:20	1
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 01:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	490		5.0	2.6	mg/L			09/24/24 20:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	460		5.0	2.6	mg/L			09/24/24 20:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	31		5.0	2.6	mg/L			09/24/24 20:57	1
Chloride (EPA 300.0)	640		10	1.3	mg/L			10/10/24 01:47	10
Fluoride (EPA 300.0)	5.7		0.050	0.024	mg/L			10/10/24 01:27	1
Sulfate (EPA 300.0)	97		1.0	0.35	mg/L			10/10/24 01:27	1
Total Dissolved Solids (SM 2540C)	2600		20	16	mg/L			09/26/24 08:39	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.211	U	0.204	0.205	1.00	0.317	pCi/L	09/26/24 08:25	10/19/24 12:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:17*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.33	G	0.731	0.741	1.00	1.03	pCi/L	09/26/24 08:37	10/16/24 12:17	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Client Sample ID: 2016-06-F-20240920-01
Date Collected: 09/20/24 11:15
Date Received: 09/24/24 08:00

Lab Sample ID: 240-211720-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.1*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:17*	*1*
Y Carrier	*81.1*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:17*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.54**		0.759	0.769	5.00	1.03	pCi/L		10/24/24 06:52	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211720-1	2016-06-F-20240920-01	92.1
LCS 160-681025/2-A	Lab Control Sample	99.5
MB 160-681025/1-A	Method Blank	90.3

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211720-1	2016-06-F-20240920-01	92.1	81.1
LCS 160-681026/2-A	Lab Control Sample	99.5	78.9
MB 160-681026/1-A	Method Blank	90.3	77.8

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-628191/1-A
Matrix: Water
Analysis Batch: 628488

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/24/24 14:00	09/25/24 19:16	1

Lab Sample ID: LCS 240-628191/2-A
Matrix: Water
Analysis Batch: 628488

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	986		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-628191/1-A
Matrix: Water
Analysis Batch: 628494

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/24/24 14:00	09/26/24 00:43	1
Arsenic	ND		5.0	0.75	ug/L		09/24/24 14:00	09/26/24 00:43	1
Barium	ND		5.0	0.77	ug/L		09/24/24 14:00	09/26/24 00:43	1
Beryllium	ND		1.0	0.27	ug/L		09/24/24 14:00	09/26/24 00:43	1
Cadmium	ND		1.0	0.077	ug/L		09/24/24 14:00	09/26/24 00:43	1
Calcium	ND		1000	250	ug/L		09/24/24 14:00	09/26/24 00:43	1
Chromium	ND		5.0	1.2	ug/L		09/24/24 14:00	09/26/24 00:43	1
Cobalt	ND		1.0	0.086	ug/L		09/24/24 14:00	09/26/24 00:43	1
Lead	ND		1.0	0.45	ug/L		09/24/24 14:00	09/26/24 00:43	1
Lithium	ND		8.0	3.4	ug/L		09/24/24 14:00	09/26/24 00:43	1
Magnesium	ND		1000	61	ug/L		09/24/24 14:00	09/26/24 00:43	1
Molybdenum	ND		5.0	1.1	ug/L		09/24/24 14:00	09/26/24 00:43	1
Potassium	ND		1000	220	ug/L		09/24/24 14:00	09/26/24 00:43	1
Selenium	ND		5.0	0.89	ug/L		09/24/24 14:00	09/26/24 00:43	1
Sodium	ND		1000	880	ug/L		09/24/24 14:00	09/26/24 00:43	1
Thallium	ND		1.0	0.51	ug/L		09/24/24 14:00	09/26/24 00:43	1

Lab Sample ID: LCS 240-628191/3-A
Matrix: Water
Analysis Batch: 628494

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.6		ug/L		99	80 - 120
Arsenic	1000	987		ug/L		99	80 - 120
Barium	1000	961		ug/L		96	80 - 120
Beryllium	500	473		ug/L		95	80 - 120
Cadmium	500	477		ug/L		95	80 - 120
Calcium	25000	24800		ug/L		99	80 - 120
Chromium	500	472		ug/L		94	80 - 120
Cobalt	500	486		ug/L		97	80 - 120
Lead	500	451		ug/L		90	80 - 120
Lithium	500	474		ug/L		95	80 - 120
Magnesium	25000	25100		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-628191/3-A
Matrix: Water
Analysis Batch: 628494

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	489		ug/L		98	80 - 120
Potassium	25000	26100		ug/L		105	80 - 120
Selenium	1000	898		ug/L		90	80 - 120
Sodium	25000	25600		ug/L		102	80 - 120
Thallium	1000	1120		ug/L		112	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-628196/1-A
Matrix: Water
Analysis Batch: 628609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/24/24 14:00	09/26/24 10:42	1

Lab Sample ID: LCS 240-628196/2-A
Matrix: Water
Analysis Batch: 628609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.97		ug/L		99	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-628614/4
Matrix: Water
Analysis Batch: 628614

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/24/24 18:45	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/24/24 18:45	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/24/24 18:45	1

Lab Sample ID: LCS 240-628614/3
Matrix: Water
Analysis Batch: 628614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	270		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630106/3
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 20:12	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 20:12	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 20:12	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-630106/4
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-628502/1
Matrix: Water
Analysis Batch: 628502

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/26/24 08:39	1

Lab Sample ID: LCS 240-628502/2
Matrix: Water
Analysis Batch: 628502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	673		mg/L		93	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-681025/1-A
Matrix: Water
Analysis Batch: 684301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681025

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2781		0.135	0.137	1.00	0.157	pCi/L	09/26/24 08:25	10/19/24 12:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*30 - 110*	*09/26/24 08:25*	*10/19/24 12:15*	*1*

Lab Sample ID: LCS 160-681025/2-A
Matrix: Water
Analysis Batch: 684301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681025

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	9.315		1.05	1.00	0.139	pCi/L	97	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.5*		*30 - 110*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-681026/1-A
Matrix: Water
Analysis Batch: 683772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681026

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4748	U	0.388	0.391	1.00	0.605	pCi/L	09/26/24 08:37	10/16/24 12:16	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*
Y Carrier	*77.8*		*30 - 110*	*09/26/24 08:37*	*10/16/24 12:16*	*1*

Lab Sample ID: LCS 160-681026/2-A
Matrix: Water
Analysis Batch: 683772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681026

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.42	7.863		1.13	1.00	0.508	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.5*		*30 - 110*
Y Carrier	*78.9*		*30 - 110*

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Metals

Prep Batch: 628191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total Recoverable	Water	3005A	
MB 240-628191/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-628191/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-628191/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 628196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	7470A	
MB 240-628196/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-628196/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 628488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total Recoverable	Water	6010D	628191
MB 240-628191/1-A	Method Blank	Total Recoverable	Water	6010D	628191
LCS 240-628191/2-A	Lab Control Sample	Total Recoverable	Water	6010D	628191

Analysis Batch: 628494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total Recoverable	Water	6020B	628191
MB 240-628191/1-A	Method Blank	Total Recoverable	Water	6020B	628191
LCS 240-628191/3-A	Lab Control Sample	Total Recoverable	Water	6020B	628191

Analysis Batch: 628609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	7470A	628196
MB 240-628196/1-A	Method Blank	Total/NA	Water	7470A	628196
LCS 240-628196/2-A	Lab Control Sample	Total/NA	Water	7470A	628196

General Chemistry

Analysis Batch: 628502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	SM 2540C	
MB 240-628502/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628502/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	2320B-1997	
MB 240-628614/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-628614/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 630106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	300.0	
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	300.0	
MB 240-630106/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630106/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211720-1

Rad

Prep Batch: 681025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	PrecSep-21	
MB 160-681025/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-681025/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 681026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211720-1	2016-06-F-20240920-01	Total/NA	Water	PrecSep_0	
MB 160-681026/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-681026/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211720-1
Project/Site: Gavin CCR

Client Sample ID: 2016-06-F-20240920-01
Lab Sample ID: 240-211720-1
Date Collected: 09/20/24 11:15
Matrix: Water
Date Received: 09/24/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6010D		1	628488	RKT	EET CLE	09/25/24 20:25
Total Recoverable	Prep	3005A			628191	BN	EET CLE	09/24/24 14:00
Total Recoverable	Analysis	6020B		1	628494	AJC	EET CLE	09/26/24 01:20
Total/NA	Prep	7470A			628196	BN	EET CLE	09/24/24 14:00
Total/NA	Analysis	7470A		1	628609	GK	EET CLE	09/26/24 11:06
Total/NA	Analysis	2320B-1997		1	628614	JWW	EET CLE	09/24/24 20:57
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 01:27
Total/NA	Analysis	300.0		10	630106	JMR	EET CLE	10/10/24 01:47
Total/NA	Analysis	SM 2540C		1	628502	TAV2	EET CLE	09/26/24 08:39
Total/NA	Prep	PrecSep-21			681025	BCE	EET SL	09/26/24 08:25
Total/NA	Analysis	9315		1	684301	SWS	EET SL	10/19/24 12:17
Total/NA	Prep	PrecSep_0			681026	BCE	EET SL	09/26/24 08:37
Total/NA	Analysis	9320		1	683772	FLC	EET SL	10/16/24 12:17
Total/NA	Analysis	Ra226_Ra228		1	684312	FLC	EET SL	10/24/24 06:52

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211720-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211720-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Columbus
209

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins
Environment Testi...

Client Information	Sampler: Bobby Coste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra228, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2016-06-F-20240920-c1	9-20-24	1115	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-211720 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Coste	9-23-24/0918	Kemron	Tom Medey	09/23 11:42	Eurofins
2		09/23/24 1700	Eurofins	MALISSA LOAR	9-24-24 8am	
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client LIGHTSTONE Site Name

Cooler Received on 9.24.24 Opened on 9.24.24

Cooler unpacked by: MALISSA LOAR

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # 2C Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt See Multiple Cooler Form

IR GUN # _____ (CF_____°C) Observed Cooler Temp _____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	2.2	2.1	Wet Ice Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.8	1.7	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

9/24/2024

Login Container Summary Report

240-211720

10/25/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2016-06-F-20240920-01	240-211720-A-1	Plastic 60 mL - unpreserved				
2016-06-F-20240920-01	240-211720-B-1	Plastic 60 mL - unpreserved				
2016-06-F-20240920-01	240-211720-C-1	Plastic 500ml - unpreserved				
2016-06-F-20240920-01	240-211720-D-1	Plastic 500ml - with Nitric Acid	<2			
2016-06-F-20240920-01	240-211720-G-1	Plastic 1 liter - Nitric Acid	<2			
2016-06-F-20240920-01	240-211720-H-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191100.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211720-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/24/2024			Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2016-06-F-20240920-01 (240-211720-1)	9/20/24	11:15 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
MALISSA LOAR	9.24.24		Dena Worthington	SEP 25 2024 0805	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/25/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211720-1

Login Number: 211720
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 09/25/24 01:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/25/2024 2:30:30 PM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-211966-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/25/2024 2:30:30 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Qualifiers

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211966-1 — Eurofins Cleveland

Job Narrative
240-211966-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/27/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 0.9°C, 0.9°C, 1.1°C, 1.7°C, 1.8°C, 1.8°C, 2.0°C and 8.0°C.

Metals
Method 6020B - Total Recoverable: The initial calibration verification low (ICVL) result for batch 240-629048 was above the upper control limit. The affected analytes are: Thallium. Sample results were below the reporting limit, and have been reported as qualified data.
9802-F-20240923-01 (240-211966-1), 9806-F-20240925-01 (240-211966-2) and 2000-F-20240925-01 (240-211966-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211966-1
Project/Site: Gavin CCR

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211966-1	9802-F-20240923-01	Water	09/25/24 15:00	09/27/24 08:00
240-211966-2	9806-F-20240925-01	Water	09/25/24 10:45	09/27/24 08:00
240-211966-3	2000-F-20240925-01	Water	09/25/24 13:14	09/27/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Client Sample ID: 9802-F-20240923-01 — Lab Sample ID: 240-211966-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	220		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	0.90	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	64		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	29000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.5		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	14		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	7700		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.4	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	290000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	600		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	42		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.0		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	69		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	800		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 9806-F-20240925-01 — Lab Sample ID: 240-211966-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	320		100	57	ug/L	1		6010D	Total Recoverable
Barium	40		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	3800		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.21	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	12		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	930	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	11		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	890	J	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	340000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	330		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	310		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	24		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	210		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	1.3		0.050	0.024	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: 9806-F-20240925-01 (Continued)

Lab Sample ID: 240-211966-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	130		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	870		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2000-F-20240925-01

Lab Sample ID: 240-211966-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	4.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	42		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.10	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	3000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	14		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.56	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.51	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	16		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	910	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	37		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1100		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.8	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	510000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	410		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	370		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	48		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	210		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	2.9		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	490		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 9802-F-20240923-01
Date Collected: 09/25/24 15:00
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211966-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	220		100	57	ug/L		09/27/24 14:00	09/30/24 12:51	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/27/24 14:00	09/30/24 17:59	1
Arsenic	0.90	J	5.0	0.75	ug/L		09/27/24 14:00	09/30/24 17:59	1
Barium	64		5.0	0.77	ug/L		09/27/24 14:00	09/30/24 17:59	1
Beryllium	ND		1.0	0.27	ug/L		09/27/24 14:00	09/30/24 17:59	1
Cadmium	ND		1.0	0.077	ug/L		09/27/24 14:00	09/30/24 17:59	1
Calcium	29000		1000	250	ug/L		09/27/24 14:00	09/30/24 17:59	1
Chromium	1.9	J	5.0	1.2	ug/L		09/27/24 14:00	09/30/24 17:59	1
Cobalt	1.5		1.0	0.086	ug/L		09/27/24 14:00	09/30/24 17:59	1
Lead	ND		1.0	0.45	ug/L		09/27/24 14:00	09/30/24 17:59	1
Lithium	14		8.0	3.4	ug/L		09/27/24 14:00	09/30/24 17:59	1
Magnesium	7700		1000	61	ug/L		09/27/24 14:00	09/30/24 17:59	1
Molybdenum	4.4	J	5.0	1.1	ug/L		09/27/24 14:00	09/30/24 17:59	1
Potassium	1500		1000	220	ug/L		09/27/24 14:00	09/30/24 17:59	1
Selenium	ND		5.0	0.89	ug/L		09/27/24 14:00	09/30/24 17:59	1
Sodium	290000		1000	880	ug/L		09/27/24 14:00	09/30/24 17:59	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/27/24 14:00	09/30/24 17:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/27/24 14:00	09/30/24 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	600		5.0	2.6	mg/L			09/27/24 19:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	600		5.0	2.6	mg/L			09/27/24 19:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			09/27/24 19:46	1
Chloride (EPA 300.0)	42		1.0	0.13	mg/L			10/09/24 22:50	1
Fluoride (EPA 300.0)	1.0		0.050	0.024	mg/L			10/09/24 22:50	1
Sulfate (EPA 300.0)	69		1.0	0.35	mg/L			10/09/24 22:50	1
Total Dissolved Solids (SM 2540C)	800		10	7.8	mg/L			09/30/24 08:38	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.180		0.123	0.124	1.00	0.167	pCi/L	10/02/24 10:28	10/24/24 07:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*30 - 110*	*10/02/24 10:28*	*10/24/24 07:39*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.08		0.570	0.579	1.00	0.808	pCi/L	10/02/24 10:32	10/21/24 14:21	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Client Sample ID: 9802-F-20240923-01
Date Collected: 09/25/24 15:00
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211966-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:21*	*1*
Y Carrier	*81.1*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:21*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.26**		0.583	0.592	5.00	0.808	pCi/L		10/25/24 13:03	1

Client Sample ID: 9806-F-20240925-01
Date Collected: 09/25/24 10:45
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211966-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	320		100	57	ug/L		09/27/24 14:00	09/30/24 12:55	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/27/24 14:00	09/30/24 18:07	1
Arsenic	ND		5.0	0.75	ug/L		09/27/24 14:00	09/30/24 18:07	1
Barium	40		5.0	0.77	ug/L		09/27/24 14:00	09/30/24 18:07	1
Beryllium	ND		1.0	0.27	ug/L		09/27/24 14:00	09/30/24 18:07	1
Cadmium	ND		1.0	0.077	ug/L		09/27/24 14:00	09/30/24 18:07	1
Calcium	3800		1000	250	ug/L		09/27/24 14:00	09/30/24 18:07	1
Chromium	1.5	J	5.0	1.2	ug/L		09/27/24 14:00	09/30/24 18:07	1
Cobalt	0.21	J	1.0	0.086	ug/L		09/27/24 14:00	09/30/24 18:07	1
Lead	ND		1.0	0.45	ug/L		09/27/24 14:00	09/30/24 18:07	1
Lithium	12		8.0	3.4	ug/L		09/27/24 14:00	09/30/24 18:07	1
Magnesium	930	J	1000	61	ug/L		09/27/24 14:00	09/30/24 18:07	1
Molybdenum	11		5.0	1.1	ug/L		09/27/24 14:00	09/30/24 18:07	1
Potassium	890	J	1000	220	ug/L		09/27/24 14:00	09/30/24 18:07	1
Selenium	ND		5.0	0.89	ug/L		09/27/24 14:00	09/30/24 18:07	1
Sodium	340000		1000	880	ug/L		09/27/24 14:00	09/30/24 18:07	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/27/24 14:00	09/30/24 18:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/27/24 14:00	09/30/24 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	330		5.0	2.6	mg/L			09/27/24 19:53	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	310		5.0	2.6	mg/L			09/27/24 19:53	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	24		5.0	2.6	mg/L			09/27/24 19:53	1
Chloride (EPA 300.0)	210		5.0	0.64	mg/L			10/10/24 00:28	5
Fluoride (EPA 300.0)	1.3		0.050	0.024	mg/L			10/10/24 00:09	1
Sulfate (EPA 300.0)	130		1.0	0.35	mg/L			10/10/24 00:09	1
Total Dissolved Solids (SM 2540C)	870		10	7.8	mg/L			09/30/24 08:38	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.128	U	0.104	0.104	1.00	0.145	pCi/L	10/02/24 10:28	10/24/24 07:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*30 - 110*	*10/02/24 10:28*	*10/24/24 07:39*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.920	U	0.624	0.630	1.00	0.947	pCi/L	10/02/24 10:32	10/21/24 14:21	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Client Sample ID: 9806-F-20240925-01
Date Collected: 09/25/24 10:45
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211966-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.4*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:21*	*1*
Y Carrier	*77.4*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:21*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.05**		0.633	0.639	5.00	0.947	pCi/L		10/25/24 13:03	1

Client Sample ID: 2000-F-20240925-01
Date Collected: 09/25/24 13:14
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211966-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		09/27/24 14:00	09/30/24 11:59	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/27/24 14:00	09/30/24 17:12	1
Arsenic	4.2	J	5.0	0.75	ug/L		09/27/24 14:00	09/30/24 17:12	1
Barium	42		5.0	0.77	ug/L		09/27/24 14:00	09/30/24 17:12	1
Beryllium	ND		1.0	0.27	ug/L		09/27/24 14:00	09/30/24 17:12	1
Cadmium	0.10	J	1.0	0.077	ug/L		09/27/24 14:00	09/30/24 17:12	1
Calcium	3000		1000	250	ug/L		09/27/24 14:00	09/30/24 17:12	1
Chromium	14		5.0	1.2	ug/L		09/27/24 14:00	09/30/24 17:12	1
Cobalt	0.56	J	1.0	0.086	ug/L		09/27/24 14:00	09/30/24 17:12	1
Lead	0.51	J	1.0	0.45	ug/L		09/27/24 14:00	09/30/24 17:12	1
Lithium	16		8.0	3.4	ug/L		09/27/24 14:00	09/30/24 17:12	1
Magnesium	910	J	1000	61	ug/L		09/27/24 14:00	09/30/24 17:12	1
Molybdenum	37		5.0	1.1	ug/L		09/27/24 14:00	09/30/24 17:12	1
Potassium	1100		1000	220	ug/L		09/27/24 14:00	09/30/24 17:12	1
Selenium	1.8	J	5.0	0.89	ug/L		09/27/24 14:00	09/30/24 17:12	1
Sodium	510000		1000	880	ug/L		09/27/24 14:00	09/30/24 17:12	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/27/24 14:00	09/30/24 17:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/27/24 14:00	09/30/24 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	410		5.0	2.6	mg/L			09/27/24 18:18	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	370		5.0	2.6	mg/L			09/27/24 18:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	48		5.0	2.6	mg/L			09/27/24 18:18	1
Chloride (EPA 300.0)	210		10	1.3	mg/L			10/09/24 21:50	10
Fluoride (EPA 300.0)	2.9		0.050	0.024	mg/L			10/09/24 20:51	1
Sulfate (EPA 300.0)	490		10	3.5	mg/L			10/09/24 21:50	10
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			09/30/24 08:38	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.239		0.133	0.135	1.00	0.170	pCi/L	10/02/24 10:28	10/24/24 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.4*		*30 - 110*	*10/02/24 10:28*	*10/24/24 07:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.137	U	0.431	0.431	1.00	0.834	pCi/L	10/02/24 10:32	10/21/24 14:21	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Client Sample ID: 2000-F-20240925-01
Date Collected: 09/25/24 13:14
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211966-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.4*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:21*	*1*
Y Carrier	*78.1*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:21*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.102	U	0.451	0.452	5.00	0.834	pCi/L		10/25/24 13:03	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211966-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211966-1	9802-F-20240923-01	83.8
240-211966-2	9806-F-20240925-01	81.4
240-211966-3	2000-F-20240925-01	89.4
240-211966-3 MS	2000-F-20240925-01	92.8
240-211966-3 MSD	2000-F-20240925-01	93.0
LCS 160-681940/2-A	Lab Control Sample	84.0
MB 160-681940/1-A	Method Blank	79.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211966-1	9802-F-20240923-01	83.8	81.1
240-211966-2	9806-F-20240925-01	81.4	77.4
240-211966-3	2000-F-20240925-01	89.4	78.1
240-211966-3 MS	2000-F-20240925-01	92.8	78.5
240-211966-3 MSD	2000-F-20240925-01	93.0	80.4
LCS 160-681941/2-A	Lab Control Sample	84.0	82.2
MB 160-681941/1-A	Method Blank	79.9	81.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-628727/1-A
Matrix: Water
Analysis Batch: 628961

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/27/24 14:00	09/30/24 11:50	1

Lab Sample ID: LCS 240-628727/2-A
Matrix: Water
Analysis Batch: 628961

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron			1000	1060		ug/L		106	80 - 120		

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 628961

Client Sample ID: 2000-F-20240925-01
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Boron	380		1000	1410		ug/L		103	75 - 125		

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 628961

Client Sample ID: 2000-F-20240925-01
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	380		1000	1450		ug/L		107	75 - 125	3	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-628727/1-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/27/24 14:00	09/30/24 17:07	1
Arsenic	ND		5.0	0.75	ug/L		09/27/24 14:00	09/30/24 17:07	1
Barium	ND		5.0	0.77	ug/L		09/27/24 14:00	09/30/24 17:07	1
Beryllium	ND		1.0	0.27	ug/L		09/27/24 14:00	09/30/24 17:07	1
Cadmium	ND		1.0	0.077	ug/L		09/27/24 14:00	09/30/24 17:07	1
Calcium	ND		1000	250	ug/L		09/27/24 14:00	09/30/24 17:07	1
Chromium	ND		5.0	1.2	ug/L		09/27/24 14:00	09/30/24 17:07	1
Cobalt	ND		1.0	0.086	ug/L		09/27/24 14:00	09/30/24 17:07	1
Lead	ND		1.0	0.45	ug/L		09/27/24 14:00	09/30/24 17:07	1
Lithium	ND		8.0	3.4	ug/L		09/27/24 14:00	09/30/24 17:07	1
Magnesium	ND		1000	61	ug/L		09/27/24 14:00	09/30/24 17:07	1
Molybdenum	ND		5.0	1.1	ug/L		09/27/24 14:00	09/30/24 17:07	1
Potassium	ND		1000	220	ug/L		09/27/24 14:00	09/30/24 17:07	1
Selenium	ND		5.0	0.89	ug/L		09/27/24 14:00	09/30/24 17:07	1
Sodium	ND		1000	880	ug/L		09/27/24 14:00	09/30/24 17:07	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/27/24 14:00	09/30/24 17:07	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-628727/3-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.3		ug/L		99	80 - 120
Arsenic	1000	959		ug/L		96	80 - 120
Barium	1000	981		ug/L		98	80 - 120
Beryllium	500	504		ug/L		101	80 - 120
Cadmium	500	487		ug/L		97	80 - 120
Calcium	25000	24700		ug/L		99	80 - 120
Chromium	500	493		ug/L		99	80 - 120
Cobalt	500	485		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	493		ug/L		99	80 - 120
Magnesium	25000	24200		ug/L		97	80 - 120
Molybdenum	500	486		ug/L		97	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	984		ug/L		98	80 - 120
Sodium	25000	25200		ug/L		101	80 - 120
Thallium	1000	1180	^1+	ug/L		118	80 - 120

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 629048

Client Sample ID: 2000-F-20240925-01
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		100	100		ug/L		100	80 - 120
Arsenic	4.2	J	1000	972		ug/L		97	80 - 120
Barium	42		1000	1030		ug/L		99	80 - 120
Beryllium	ND		500	502		ug/L		100	80 - 120
Cadmium	0.10	J	500	473		ug/L		95	80 - 120
Calcium	3000		25000	27300		ug/L		97	80 - 120
Chromium	14		500	493		ug/L		96	80 - 120
Cobalt	0.56	J	500	491		ug/L		98	80 - 120
Lead	0.51	J	500	459		ug/L		92	80 - 120
Lithium	16		500	507		ug/L		98	80 - 120
Magnesium	910	J	25000	24600		ug/L		95	80 - 120
Molybdenum	37		500	531		ug/L		99	80 - 120
Potassium	1100		25000	24900		ug/L		95	80 - 120
Selenium	1.8	J	1000	953		ug/L		95	80 - 120
Sodium	510000		25000	533000	4	ug/L		80	80 - 120
Thallium	ND	^1+	1000	1160	^1+	ug/L		116	80 - 120

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 629048

Client Sample ID: 2000-F-20240925-01
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		100	101		ug/L		101	80 - 120	1	20
Arsenic	4.2	J	1000	982		ug/L		98	80 - 120	1	20
Barium	42		1000	1040		ug/L		99	80 - 120	1	20
Beryllium	ND		500	504		ug/L		101	80 - 120	0	20
Cadmium	0.10	J	500	475		ug/L		95	80 - 120	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 629048

Client Sample ID: 2000-F-20240925-01
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	3000		25000	27500		ug/L		98	80 - 120	1	20
Chromium	14		500	498		ug/L		97	80 - 120	1	20
Cobalt	0.56	J	500	493		ug/L		98	80 - 120	0	20
Lead	0.51	J	500	462		ug/L		92	80 - 120	1	20
Lithium	16		500	513		ug/L		99	80 - 120	1	20
Magnesium	910	J	25000	24700		ug/L		95	80 - 120	0	20
Molybdenum	37		500	539		ug/L		101	80 - 120	2	20
Potassium	1100		25000	25200		ug/L		96	80 - 120	1	20
Selenium	1.8	J	1000	964		ug/L		96	80 - 120	1	20
Sodium	510000		25000	540000	4	ug/L		108	80 - 120	1	20
Thallium	ND	^1+	1000	1150	^1+	ug/L		115	80 - 120	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-628742/1-A
Matrix: Water
Analysis Batch: 628987

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 628742

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/27/24 14:00	09/30/24 14:06	1

Lab Sample ID: LCS 240-628742/2-A
Matrix: Water
Analysis Batch: 628987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 628742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.91		ug/L		98	80 - 120

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 628987

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA
Prep Batch: 628742

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		1.00	0.938		ug/L		94	80 - 120

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 628987

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA
Prep Batch: 628742

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		1.00	0.953		ug/L		95	80 - 120	2	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-628897/4
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/27/24 18:14	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-628897/4
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/27/24 18:14	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/27/24 18:14	1

Lab Sample ID: LCS 240-628897/3
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity			280	272		mg/L		97	86 - 123		

Lab Sample ID: 240-211966-3 DU
Matrix: Water
Analysis Batch: 628897

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity	410			416		mg/L				1	20
Bicarbonate Alkalinity as CaCO3	350			368		mg/L				3	20
Carbonate Alkalinity as CaCO3	55			48.3		mg/L				13	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630106/3
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 20:12	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 20:12	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 20:12	1

Lab Sample ID: LCS 240-630106/4
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			50.0	50.7		mg/L		101	90 - 110		
Fluoride			2.50	2.65		mg/L		106	90 - 110		
Sulfate			50.0	52.6		mg/L		105	90 - 110		

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 630106

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	2.9		2.50	5.30		mg/L		96	80 - 120		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 630106

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	210		500	688		mg/L		96	80 - 120
Sulfate	490		500	977		mg/L		97	80 - 120

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 630106

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	2.9		2.50	5.40		mg/L		101	80 - 120	2	15

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 630106

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	210		500	663		mg/L		91	80 - 120	4	15
Sulfate	490		500	952		mg/L		92	80 - 120	3	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-628882/1
Matrix: Water
Analysis Batch: 628882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/30/24 08:38	1

Lab Sample ID: LCS 240-628882/2
Matrix: Water
Analysis Batch: 628882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	679		mg/L		94	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-681940/1-A
Matrix: Water
Analysis Batch: 684895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681940

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1239	U	0.116	0.117	1.00	0.177	pCi/L	10/02/24 10:28	10/24/24 07:35	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*30 - 110*	*10/02/24 10:28*	*10/24/24 07:35*	*1*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-681940/2-A
Matrix: Water
Analysis Batch: 684895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681940

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	10.38		1.18	1.00	0.237	pCi/L	108	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.0*		*30 - 110*

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 684899

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA
Prep Batch: 681940

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.239		9.59	8.404		0.982	1.00	0.181	pCi/L	85	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.8*		*30 - 110*

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 684899

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA
Prep Batch: 681940

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.239		9.59	8.598		0.999	1.00	0.185	pCi/L	87	60 - 140	0.1	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.0*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-681941/1-A
Matrix: Water
Analysis Batch: 684311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681941

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2910	U	0.272	0.274	1.00	0.620	pCi/L	10/02/24 10:32	10/21/24 12:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*30 - 110*	*10/02/24 10:32*	*10/21/24 12:22*	*1*
Y Carrier	*81.5*		*30 - 110*	*10/02/24 10:32*	*10/21/24 12:22*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-681941/2-A
Matrix: Water
Analysis Batch: 684311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681941

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.41	9.405		1.34	1.00	0.597	pCi/L	112	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.0*		*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Lab Sample ID: 240-211966-3 MS
Matrix: Water
Analysis Batch: 684457

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA
Prep Batch: 681941

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	-0.137	U	8.42	11.61		1.63	1.00	0.696	pCi/L	138	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*92.8*		*30 - 110*
Y Carrier	*78.5*		*30 - 110*

Lab Sample ID: 240-211966-3 MSD
Matrix: Water
Analysis Batch: 684457

Client Sample ID: 2000-F-20240925-01
Prep Type: Total/NA
Prep Batch: 681941

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	-0.137	U	8.42	9.738		1.45	1.00	0.758	pCi/L	116	60 - 140	0.61	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.0*		*30 - 110*
Y Carrier	*80.4*		*30 - 110*

Metals

Prep Batch: 628727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total Recoverable	Water	3005A	
240-211966-2	9806-F-20240925-01	Total Recoverable	Water	3005A	
240-211966-3	2000-F-20240925-01	Total Recoverable	Water	3005A	
MB 240-628727/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-628727/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-628727/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-211966-3 MS	2000-F-20240925-01	Total Recoverable	Water	3005A	
240-211966-3 MS	2000-F-20240925-01	Total Recoverable	Water	3005A	
240-211966-3 MSD	2000-F-20240925-01	Total Recoverable	Water	3005A	
240-211966-3 MSD	2000-F-20240925-01	Total Recoverable	Water	3005A	

Prep Batch: 628742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	7470A	
240-211966-2	9806-F-20240925-01	Total/NA	Water	7470A	
240-211966-3	2000-F-20240925-01	Total/NA	Water	7470A	
MB 240-628742/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-628742/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-211966-3 MS	2000-F-20240925-01	Total/NA	Water	7470A	
240-211966-3 MSD	2000-F-20240925-01	Total/NA	Water	7470A	

Analysis Batch: 628961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total Recoverable	Water	6010D	628727
240-211966-2	9806-F-20240925-01	Total Recoverable	Water	6010D	628727
240-211966-3	2000-F-20240925-01	Total Recoverable	Water	6010D	628727
MB 240-628727/1-A	Method Blank	Total Recoverable	Water	6010D	628727
LCS 240-628727/2-A	Lab Control Sample	Total Recoverable	Water	6010D	628727
240-211966-3 MS	2000-F-20240925-01	Total Recoverable	Water	6010D	628727
240-211966-3 MSD	2000-F-20240925-01	Total Recoverable	Water	6010D	628727

Analysis Batch: 628987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-3	2000-F-20240925-01	Total/NA	Water	7470A	628742
MB 240-628742/1-A	Method Blank	Total/NA	Water	7470A	628742
LCS 240-628742/2-A	Lab Control Sample	Total/NA	Water	7470A	628742
240-211966-3 MS	2000-F-20240925-01	Total/NA	Water	7470A	628742
240-211966-3 MSD	2000-F-20240925-01	Total/NA	Water	7470A	628742

Analysis Batch: 629047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	7470A	628742
240-211966-2	9806-F-20240925-01	Total/NA	Water	7470A	628742

Analysis Batch: 629048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total Recoverable	Water	6020B	628727
240-211966-2	9806-F-20240925-01	Total Recoverable	Water	6020B	628727
240-211966-3	2000-F-20240925-01	Total Recoverable	Water	6020B	628727
MB 240-628727/1-A	Method Blank	Total Recoverable	Water	6020B	628727
LCS 240-628727/3-A	Lab Control Sample	Total Recoverable	Water	6020B	628727

Metals (Continued)

Analysis Batch: 629048 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-3 MS	2000-F-20240925-01	Total Recoverable	Water	6020B	628727
240-211966-3 MSD	2000-F-20240925-01	Total Recoverable	Water	6020B	628727

General Chemistry

Analysis Batch: 628882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	SM 2540C	
240-211966-2	9806-F-20240925-01	Total/NA	Water	SM 2540C	
240-211966-3	2000-F-20240925-01	Total/NA	Water	SM 2540C	
MB 240-628882/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628882/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	2320B-1997	
240-211966-2	9806-F-20240925-01	Total/NA	Water	2320B-1997	
240-211966-3	2000-F-20240925-01	Total/NA	Water	2320B-1997	
MB 240-628897/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-628897/3	Lab Control Sample	Total/NA	Water	2320B-1997	
240-211966-3 DU	2000-F-20240925-01	Total/NA	Water	2320B-1997	

Analysis Batch: 630106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	300.0	
240-211966-2	9806-F-20240925-01	Total/NA	Water	300.0	
240-211966-2	9806-F-20240925-01	Total/NA	Water	300.0	
240-211966-3	2000-F-20240925-01	Total/NA	Water	300.0	
240-211966-3	2000-F-20240925-01	Total/NA	Water	300.0	
MB 240-630106/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630106/4	Lab Control Sample	Total/NA	Water	300.0	
240-211966-3 MS	2000-F-20240925-01	Total/NA	Water	300.0	
240-211966-3 MS	2000-F-20240925-01	Total/NA	Water	300.0	
240-211966-3 MSD	2000-F-20240925-01	Total/NA	Water	300.0	
240-211966-3 MSD	2000-F-20240925-01	Total/NA	Water	300.0	

Rad

Prep Batch: 681940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	PrecSep-21	
240-211966-2	9806-F-20240925-01	Total/NA	Water	PrecSep-21	
240-211966-3	2000-F-20240925-01	Total/NA	Water	PrecSep-21	
MB 160-681940/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-681940/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-211966-3 MS	2000-F-20240925-01	Total/NA	Water	PrecSep-21	
240-211966-3 MSD	2000-F-20240925-01	Total/NA	Water	PrecSep-21	

Prep Batch: 681941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-1	9802-F-20240923-01	Total/NA	Water	PrecSep_0	
240-211966-2	9806-F-20240925-01	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 681941 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211966-3	2000-F-20240925-01	Total/NA	Water	PrecSep_0	
MB 160-681941/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-681941/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-211966-3 MS	2000-F-20240925-01	Total/NA	Water	PrecSep_0	
240-211966-3 MSD	2000-F-20240925-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211966-1
Project/Site: Gavin CCR

Client Sample ID: 9802-F-20240923-01
Lab Sample ID: 240-211966-1
Date Collected: 09/25/24 15:00
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6010D		1	628961	RKT	EET CLE	09/30/24 12:51
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 17:59
Total/NA	Prep	7470A			628742	XWS6	EET CLE	09/27/24 14:00
Total/NA	Analysis	7470A		1	629047	GK	EET CLE	09/30/24 15:20
Total/NA	Analysis	2320B-1997		1	628897	GZF4	EET CLE	09/27/24 19:46
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/09/24 22:50
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38
Total/NA	Prep	PrecSep-21			681940	MLT	EET SL	10/02/24 10:28
Total/NA	Analysis	9315		1	684895	FLC	EET SL	10/24/24 07:39
Total/NA	Prep	PrecSep_0			681941	MLT	EET SL	10/02/24 10:32
Total/NA	Analysis	9320		1	684457	FLC	EET SL	10/21/24 14:21
Total/NA	Analysis	Ra226_Ra228		1	685162	FLC	EET SL	10/25/24 13:03

Client Sample ID: 9806-F-20240925-01
Lab Sample ID: 240-211966-2
Date Collected: 09/25/24 10:45
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6010D		1	628961	RKT	EET CLE	09/30/24 12:55
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 18:07
Total/NA	Prep	7470A			628742	XWS6	EET CLE	09/27/24 14:00
Total/NA	Analysis	7470A		1	629047	GK	EET CLE	09/30/24 15:22
Total/NA	Analysis	2320B-1997		1	628897	GZF4	EET CLE	09/27/24 19:53
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 00:09
Total/NA	Analysis	300.0		5	630106	JMR	EET CLE	10/10/24 00:28
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38
Total/NA	Prep	PrecSep-21			681940	MLT	EET SL	10/02/24 10:28
Total/NA	Analysis	9315		1	684895	FLC	EET SL	10/24/24 07:39
Total/NA	Prep	PrecSep_0			681941	MLT	EET SL	10/02/24 10:32
Total/NA	Analysis	9320		1	684457	FLC	EET SL	10/21/24 14:21
Total/NA	Analysis	Ra226_Ra228		1	685162	FLC	EET SL	10/25/24 13:03

Client Sample ID: 2000-F-20240925-01
Lab Sample ID: 240-211966-3
Date Collected: 09/25/24 13:14
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6010D		1	628961	RKT	EET CLE	09/30/24 11:59

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211966-1
Project/Site: Gavin CCR

Client Sample ID: 2000-F-20240925-01
Lab Sample ID: 240-211966-3
Date Collected: 09/25/24 13:14
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 17:12
Total/NA	Prep	7470A			628742	XWS6	EET CLE	09/27/24 14:00
Total/NA	Analysis	7470A		1	628987	GK	EET CLE	09/30/24 14:10
Total/NA	Analysis	2320B-1997		1	628897	GZF4	EET CLE	09/27/24 18:18
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/09/24 20:51
Total/NA	Analysis	300.0		10	630106	JMR	EET CLE	10/09/24 21:50
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38
Total/NA	Prep	PrecSep-21			681940	MLT	EET SL	10/02/24 10:28
Total/NA	Analysis	9315		1	684899	SWS	EET SL	10/24/24 07:43
Total/NA	Prep	PrecSep_0			681941	MLT	EET SL	10/02/24 10:32
Total/NA	Analysis	9320		1	684457	FLC	EET SL	10/21/24 14:21
Total/NA	Analysis	Ra226_Ra228		1	685162	FLC	EET SL	10/25/24 13:03

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211966-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211966-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Custo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-323-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
9802-F-20240923-01	9-23-24	1500	G	Water	N		1	1	2	N	1		
9806-F-20240925-01	9-25-24	1045	G	Water	N		1	1	2	1	1		
2000-F-20240925-01	9-25-24	1314	G	Water	N		1	1	2	1	1		
2000-F-20240925-MS-01	9-25-24	1314	G	Water	N	Y	1	1	2	1	1		
2000-F-20240925-MSD-01	9-25-24	1314	G	Water	N	Y	1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-211966 COC

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Custo	9-26-24 / 0920	KEMRON	Ashley Deal	9.26.24 1110	ETA
Ashley Deal	9.26.24 1700	ETA	KATHARINE MARTIN	9/27/24 800	EUR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: ICM
Cooler Received on 9/27/24 Opened on 9/27/24
FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____
Receipt After-hours Drop-off Date/Time _____ Storage Location _____
Eurofins Cooler # EC Foam Box Client Cooler Box Other _____
Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____
COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form
IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp _____ °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	(Yes) No NA
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8.	Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC447997
14.	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____
_____
_____
_____

19 SAMPLE CONDITION
Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory
Time preserved. _____ Preservative(s) added/Lot number(s). _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	2.1	2.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.2	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	8.1	8.0	Wet Ice Blue Ice Dry Ice Water (None)
(EC) Client Box Other	IR GUN #:	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.9	1.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.9	1.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.8	1.7	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

9/27/2024

Login Container Summary Report

240-211966

10/25/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9802-F-20240923-01	240-211966-A-1	Plastic 60 mL - unpreserved				
9802-F-20240923-01	240-211966-B-1	Plastic 60 mL - unpreserved				
9802-F-20240923-01	240-211966-C-1	Plastic 500ml - unpreserved				
9802-F-20240923-01	240-211966-D-1	Plastic 500ml - with Nitric Acid	<2			
9802-F-20240923-01	240-211966-G-1	Plastic 1 liter - Nitric Acid	<2			
9802-F-20240923-01	240-211966-H-1	Plastic 1 liter - Nitric Acid	<2			
9806-F-20240925-01	240-211966-A-2	Plastic 60 mL - unpreserved				
9806-F-20240925-01	240-211966-B-2	Plastic 60 mL - unpreserved				
9806-F-20240925-01	240-211966-C-2	Plastic 500ml - unpreserved				
9806-F-20240925-01	240-211966-D-2	Plastic 500ml - with Nitric Acid	<2			
9806-F-20240925-01	240-211966-E-2	Plastic 1 liter - Nitric Acid	<2			
9806-F-20240925-01	240-211966-F-2	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-A-3	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-B-3	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-C-3	Plastic 500ml - unpreserved				
2000-F-20240925-01	240-211966-D-3	Plastic 500ml - with Nitric Acid	<2			
2000-F-20240925-01	240-211966-E-3	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-F-3	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-A-4	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-B-4	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-C-4	Plastic 500ml - unpreserved				
2000-F-20240925-01	240-211966-D-4	Plastic 500ml - with Nitric Acid	<2			
2000-F-20240925-01	240-211966-E-4	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-F-4	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-A-5	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-B-5	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-C-5	Plastic 500ml - unpreserved				
2000-F-20240925-01	240-211966-D-5	Plastic 500ml - with Nitric Acid	<2			
2000-F-20240925-01	240-211966-E-5	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-F-5	Plastic 1 liter - Nitric Acid	<2			
2000-F-20240925-01	240-211966-A-6	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-B-6	Plastic 60 mL - unpreserved				
2000-F-20240925-01	240-211966-C-6	Plastic 500ml - unpreserved				
2000-F-20240925-01	240-211966-D-6	Plastic 500ml - with Nitric Acid	<2			
2000-F-20240925-01	240-211966-E-6	Plastic 1 liter - Nitric Acid	<2			

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2000-F-20240925-01	240-211966-F-6	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191440.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211966-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/29/2024			Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
9802-F-20240923-01 (240-211966-1)	9/25/24	15:00 Eastern	G	Water			X	X	X	2	
9806-F-20240925-01 (240-211966-2)	9/25/24	10:45 Eastern	G	Water			X	X	X	2	
2000-F-20240925-01 (240-211966-3)	9/25/24	13:14 Eastern	G	Water			X	X	X	2	
2000-F-20240925-01 (240-211966-3MS)	9/25/24	13:14 Eastern	G	Water			X	X		2	
2000-F-20240925-01 (240-211966-3MSD)	9/25/24	13:14 Eastern	G	Water			X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: MELISSA LOAR	Date/Time: 9-30-24	Company	Received by: Sierra Worthington	Date/Time: OCT 01 2024 0900	Company: ETNCL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211966-1

Login Number: 211966
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/01/24 02:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 10/25/2024 2:32:05 PM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-211967-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
10/25/2024 2:32:05 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Qualifiers

Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211967-1 — Eurofins Cleveland

Job Narrative
240-211967-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 9/27/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 0.9°C, 0.9°C, 1.1°C, 1.7°C, 1.8°C, 1.8°C, 2.0°C and 8.0°C.

Metals
Method 6020B - Total Recoverable: The initial calibration verification low (ICVL) result for batch 240-629048 was above the upper control limit. The affected analytes are: Thallium. Sample results were below the reporting limit, and have been reported as qualified data.
2016-07-F-20240925-01 (240-211967-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211967-1	2016-07-F-20240925-01	Water	09/25/24 15:21	09/27/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Client Sample ID: 2016-07-F-20240925-01

Lab Sample ID: 240-211967-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	430		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	2.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	550		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	18000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.30	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	51		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	5100		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	59		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	11000000		500000	440000	ug/L	500		6020B	Total Recoverable
Total Alkalinity	250		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	8.5		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1900		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.5		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	15		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	3000		40	31	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Client Sample ID: 2016-07-F-20240925-01

Date Collected: 09/25/24 15:21
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211967-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	430		100	57	ug/L		09/27/24 14:00	09/30/24 12:59	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/27/24 14:00	09/30/24 18:10	1
Arsenic	2.8	J	5.0	0.75	ug/L		09/27/24 14:00	09/30/24 18:10	1
Barium	550		5.0	0.77	ug/L		09/27/24 14:00	09/30/24 18:10	1
Beryllium	ND		1.0	0.27	ug/L		09/27/24 14:00	09/30/24 18:10	1
Cadmium	ND		1.0	0.077	ug/L		09/27/24 14:00	09/30/24 18:10	1
Calcium	18000		1000	250	ug/L		09/27/24 14:00	09/30/24 18:10	1
Chromium	1.5	J	5.0	1.2	ug/L		09/27/24 14:00	09/30/24 18:10	1
Cobalt	0.30	J	1.0	0.086	ug/L		09/27/24 14:00	09/30/24 18:10	1
Lead	ND		1.0	0.45	ug/L		09/27/24 14:00	09/30/24 18:10	1
Lithium	51		8.0	3.4	ug/L		09/27/24 14:00	09/30/24 18:10	1
Magnesium	5100		1000	61	ug/L		09/27/24 14:00	09/30/24 18:10	1
Molybdenum	59		5.0	1.1	ug/L		09/27/24 14:00	09/30/24 18:10	1
Potassium	3800		1000	220	ug/L		09/27/24 14:00	09/30/24 18:10	1
Selenium	ND		5.0	0.89	ug/L		09/27/24 14:00	09/30/24 18:10	1
Sodium	11000000		500000	440000	ug/L		09/27/24 14:00	10/03/24 19:20	500
Thallium	ND	^1+	1.0	0.51	ug/L		09/27/24 14:00	09/30/24 18:10	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		09/27/24 14:00	09/30/24 15:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	250		5.0	2.6	mg/L			09/27/24 21:01	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	240		5.0	2.6	mg/L			09/27/24 21:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	8.5		5.0	2.6	mg/L			09/27/24 21:01	1
Chloride (EPA 300.0)	1900		20	2.6	mg/L			10/10/24 01:08	20
Fluoride (EPA 300.0)	2.5		0.10	0.048	mg/L			10/10/24 00:48	2
Sulfate (EPA 300.0)	15		2.0	0.70	mg/L			10/10/24 00:48	2
Total Dissolved Solids (SM 2540C)	3000		40	31	mg/L			09/30/24 08:38	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.679		0.206	0.215	1.00	0.195	pCi/L	10/02/24 10:28	10/24/24 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*30 - 110*	*10/02/24 10:28*	*10/24/24 07:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.615	U	0.471	0.474	1.00	0.720	pCi/L	10/02/24 10:32	10/21/24 14:22	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Client Sample ID: 2016-07-F-20240925-01
Date Collected: 09/25/24 15:21
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211967-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:22*	*1*
Y Carrier	*79.6*		*30 - 110*	*10/02/24 10:32*	*10/21/24 14:22*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.29**		0.514	0.520	5.00	0.720	pCi/L		10/25/24 13:03	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-211967-1	2016-07-F-20240925-01	88.7
LCS 160-681940/2-A	Lab Control Sample	84.0
MB 160-681940/1-A	Method Blank	79.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-211967-1	2016-07-F-20240925-01	88.7	79.6
LCS 160-681941/2-A	Lab Control Sample	84.0	82.2
MB 160-681941/1-A	Method Blank	79.9	81.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-628727/1-A
Matrix: Water
Analysis Batch: 628961

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/27/24 14:00	09/30/24 11:50	1

Lab Sample ID: LCS 240-628727/2-A
Matrix: Water
Analysis Batch: 628961

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1060		ug/L		106	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-628727/1-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/27/24 14:00	09/30/24 17:07	1
Arsenic	ND		5.0	0.75	ug/L		09/27/24 14:00	09/30/24 17:07	1
Barium	ND		5.0	0.77	ug/L		09/27/24 14:00	09/30/24 17:07	1
Beryllium	ND		1.0	0.27	ug/L		09/27/24 14:00	09/30/24 17:07	1
Cadmium	ND		1.0	0.077	ug/L		09/27/24 14:00	09/30/24 17:07	1
Calcium	ND		1000	250	ug/L		09/27/24 14:00	09/30/24 17:07	1
Chromium	ND		5.0	1.2	ug/L		09/27/24 14:00	09/30/24 17:07	1
Cobalt	ND		1.0	0.086	ug/L		09/27/24 14:00	09/30/24 17:07	1
Lead	ND		1.0	0.45	ug/L		09/27/24 14:00	09/30/24 17:07	1
Lithium	ND		8.0	3.4	ug/L		09/27/24 14:00	09/30/24 17:07	1
Magnesium	ND		1000	61	ug/L		09/27/24 14:00	09/30/24 17:07	1
Molybdenum	ND		5.0	1.1	ug/L		09/27/24 14:00	09/30/24 17:07	1
Potassium	ND		1000	220	ug/L		09/27/24 14:00	09/30/24 17:07	1
Selenium	ND		5.0	0.89	ug/L		09/27/24 14:00	09/30/24 17:07	1
Sodium	ND		1000	880	ug/L		09/27/24 14:00	09/30/24 17:07	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/27/24 14:00	09/30/24 17:07	1

Lab Sample ID: LCS 240-628727/3-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.3		ug/L		99	80 - 120
Arsenic	1000	959		ug/L		96	80 - 120
Barium	1000	981		ug/L		98	80 - 120
Beryllium	500	504		ug/L		101	80 - 120
Cadmium	500	487		ug/L		97	80 - 120
Calcium	25000	24700		ug/L		99	80 - 120
Chromium	500	493		ug/L		99	80 - 120
Cobalt	500	485		ug/L		97	80 - 120
Lead	500	474		ug/L		95	80 - 120
Lithium	500	493		ug/L		99	80 - 120
Magnesium	25000	24200		ug/L		97	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-628727/3-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	486		ug/L		97	80 - 120
Potassium	25000	24400		ug/L		98	80 - 120
Selenium	1000	984		ug/L		98	80 - 120
Sodium	25000	25200		ug/L		101	80 - 120
Thallium	1000	1180	^1+	ug/L		118	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-628897/30
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/27/24 20:38	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/27/24 20:38	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/27/24 20:38	1

Lab Sample ID: MB 240-628897/4
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			09/27/24 18:14	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/27/24 18:14	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			09/27/24 18:14	1

Lab Sample ID: LCS 240-628897/29
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		97	86 - 123

Lab Sample ID: LCS 240-628897/3
Matrix: Water
Analysis Batch: 628897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	272		mg/L		97	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630106/3
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 20:12	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 20:12	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 20:12	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-630106/4
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-628882/1
Matrix: Water
Analysis Batch: 628882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/30/24 08:38	1

Lab Sample ID: LCS 240-628882/2
Matrix: Water
Analysis Batch: 628882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	679		mg/L		94	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-681940/1-A
Matrix: Water
Analysis Batch: 684895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681940

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1239	U	0.116	0.117	1.00	0.177	pCi/L	10/02/24 10:28	10/24/24 07:35	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*30 - 110*	*10/02/24 10:28*	*10/24/24 07:35*	*1*

Lab Sample ID: LCS 160-681940/2-A
Matrix: Water
Analysis Batch: 684895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681940

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	10.38		1.18	1.00	0.237	pCi/L	108	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.0*		*30 - 110*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-681941/1-A
Matrix: Water
Analysis Batch: 684311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681941

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2910	U	0.272	0.274	1.00	0.620	pCi/L	10/02/24 10:32	10/21/24 12:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*30 - 110*	*10/02/24 10:32*	*10/21/24 12:22*	*1*
Y Carrier	*81.5*		*30 - 110*	*10/02/24 10:32*	*10/21/24 12:22*	*1*

Lab Sample ID: LCS 160-681941/2-A
Matrix: Water
Analysis Batch: 684311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681941

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.41	9.405		1.34	1.00	0.597	pCi/L	112	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*84.0*		*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Metals

Prep Batch: 628727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total Recoverable	Water	3005A	
MB 240-628727/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-628727/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-628727/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 628742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	7470A	

Analysis Batch: 628961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total Recoverable	Water	6010D	628727
MB 240-628727/1-A	Method Blank	Total Recoverable	Water	6010D	628727
LCS 240-628727/2-A	Lab Control Sample	Total Recoverable	Water	6010D	628727

Analysis Batch: 629047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	7470A	628742

Analysis Batch: 629048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total Recoverable	Water	6020B	628727
MB 240-628727/1-A	Method Blank	Total Recoverable	Water	6020B	628727
LCS 240-628727/3-A	Lab Control Sample	Total Recoverable	Water	6020B	628727

Analysis Batch: 629497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total Recoverable	Water	6020B	628727

General Chemistry

Analysis Batch: 628882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	SM 2540C	
MB 240-628882/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628882/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 628897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	2320B-1997	
MB 240-628897/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-628897/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-628897/29	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-628897/3	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 630106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	300.0	
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	300.0	
MB 240-630106/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630106/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-211967-1

Rad

Prep Batch: 681940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	PrecSep-21	
MB 160-681940/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-681940/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 681941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211967-1	2016-07-F-20240925-01	Total/NA	Water	PrecSep_0	
MB 160-681941/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-681941/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211967-1
Project/Site: Gavin CCR

Client Sample ID: 2016-07-F-20240925-01
Lab Sample ID: 240-211967-1
Date Collected: 09/25/24 15:21
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6010D		1	628961	RKT	EET CLE	09/30/24 12:59
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 18:10
Total Recoverable	Prep	3005A			628727	XWS6	EET CLE	09/27/24 14:00
Total Recoverable	Analysis	6020B		500	629497	AJC	EET CLE	10/03/24 19:20
Total/NA	Prep	7470A			628742	XWS6	EET CLE	09/27/24 14:00
Total/NA	Analysis	7470A		1	629047	GK	EET CLE	09/30/24 15:24
Total/NA	Analysis	2320B-1997		1	628897	GZF4	EET CLE	09/27/24 21:01
Total/NA	Analysis	300.0		2	630106	JMR	EET CLE	10/10/24 00:48
Total/NA	Analysis	300.0		20	630106	JMR	EET CLE	10/10/24 01:08
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38
Total/NA	Prep	PrecSep-21			681940	MLT	EET SL	10/02/24 10:28
Total/NA	Analysis	9315		1	684899	SWS	EET SL	10/24/24 07:43
Total/NA	Prep	PrecSep_0			681941	MLT	EET SL	10/02/24 10:32
Total/NA	Analysis	9320		1	684457	FLC	EET SL	10/21/24 14:22
Total/NA	Analysis	Ra226_Ra228		1	685162	FLC	EET SL	10/25/24 13:03

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211967-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211967-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24 *
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins Environment Testing

Client Information	Sampler: Bobby Gesto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No.: 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: GGVH	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastestl, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2016-07-F-20240925-01	9-25-24	1521	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-211967 COC

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	9-26-24 / 0920	Kemper	Ashley Deal	9/26/24 1710	ETA
Ashley Deal	9/26/24 1700	ETA	KATHARINE MARTIN	9/27/24 800	EUL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: ICM

Cooler Received on 9/27/24 Opened on 9/27/24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	2.1	2.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.2	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	8.1	8.0	Wet Ice Blue Ice Dry Ice Water (None)
(EC) Client Box Other	IR GUN #:	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.9	1.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.9	1.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.8	1.7	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
				☐ See Temperature Excursion Form

9/27/2024

Login Container Summary Report

240-211967

10/25/2024

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2016-07-F-20240925-01	240-211967-A-1	Plastic 60 mL - unpreserved				
2016-07-F-20240925-01	240-211967-B-1	Plastic 60 mL - unpreserved				
2016-07-F-20240925-01	240-211967-C-1	Plastic 500ml - unpreserved				
2016-07-F-20240925-01	240-211967-D-1	Plastic 500ml - with Nitric Acid	<2			
2016-07-F-20240925-01	240-211967-G-1	Plastic 1 liter - Nitric Acid	<2			
2016-07-F-20240925-01	240-211967-H-1	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191440.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-211967-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/29/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2016-07-F-20240925-01 (240-211967-1)	9/25/24	15:21 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: MALISSA LOAR	Date/Time: 9.30.24	Company	Received by: Sierra Worthington	Date/Time: OCT 01 2024 0900	Company EFSL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/25/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-211967-1

Login Number: 211967
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/01/24 12:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/10/2024 6:04:38 PM

JOB DESCRIPTION

Federal CCR Wells

JOB NUMBER

240-211970-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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10/10/2024 6:04:38 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-211970-1 — Eurofins Cleveland

Job Narrative
240-211970-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/27/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 0.9°C, 0.9°C, 1.1°C, 1.7°C, 1.8°C, 1.8°C, 2.0°C and 8.0°C.

Metals
Method 6020B - Total Recoverable: The initial calibration verification low (ICVL) result for batch 240-629048 was above the upper control limit. The affected analytes are: Thallium. Sample results were below the reporting limit, and have been reported as qualified data.
2018-04-F-20240924-01 (240-211970-1), 2018-03-F-20240924-01 (240-211970-2) and 2018-02-F-20240924-01 (240-211970-3)

Method 6020B - Total Recoverable: The laboratory control sample (LCS) for preparation batch 240-628759 and analytical batch 240-629048 recovered outside control limits for the following analytes: Thallium. These analytes were biased high in the LCS and were below the reporting limit in the associated samples; therefore, the data have been reported. 2018-04-F-20240924-01 (240-211970-1), 2018-03-F-20240924-01 (240-211970-2) and 2018-02-F-20240924-01 (240-211970-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211970-1
Project/Site: Federal CCR Wells

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211970-1
Project/Site: Federal CCR Wells

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-211970-1	2018-04-F-20240924-01	Water	09/24/24 12:00	09/27/24 08:00
240-211970-2	2018-03-F-20240924-01	Water	09/24/24 13:00	09/27/24 08:00
240-211970-3	2018-02-F-20240924-01	Water	09/24/24 13:55	09/27/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Client Sample ID: 2018-04-F-20240924-01 — Lab Sample ID: 240-211970-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	340		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.0	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	3.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	19		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	69000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.73	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.71	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	16		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	18000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	43		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2900		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.8	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	450000		1000	880	ug/L	1		6020B	Total Recoverable
Chloride	62		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.62		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	690		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1500		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-03-F-20240924-01 — Lab Sample ID: 240-211970-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	510		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	8.4		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	250		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.11	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	21000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	8.6		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.4		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	3.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	34		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	6300		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.2	J	5.0	1.1	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Client Sample ID: 2018-03-F-20240924-01 (Continued)

Lab Sample ID: 240-211970-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	2700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1200000		10000	8800	ug/L	10		6020B	Total Recoverable
Chloride	1300		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	0.97		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	990		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3800		40	31	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2018-02-F-20240924-01

Lab Sample ID: 240-211970-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	340		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.69	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	5.2		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	700		5.0	0.77	ug/L	1		6020B	Total Recoverable
Beryllium	0.27	J	1.0	0.27	ug/L	1		6020B	Total Recoverable
Cadmium	0.098	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	51000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	63		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.9		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	3.2		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	57		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	15000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	77		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2000000		10000	8800	ug/L	10		6020B	Total Recoverable
Chloride	3200		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.2		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	160		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5100		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Client Sample ID: 2018-04-F-20240924-01

Lab Sample ID: 240-211970-1

Date Collected: 09/24/24 12:00

Matrix: Water

Date Received: 09/27/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	340		100	57	ug/L		09/28/24 08:00	10/01/24 04:24	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.0	J	2.0	0.57	ug/L		09/28/24 08:00	09/30/24 21:11	1
Arsenic	3.3	J	5.0	0.75	ug/L		09/28/24 08:00	09/30/24 21:11	1
Barium	19		5.0	0.77	ug/L		09/28/24 08:00	09/30/24 21:11	1
Beryllium	ND		1.0	0.27	ug/L		09/28/24 08:00	09/30/24 21:11	1
Cadmium	ND		1.0	0.077	ug/L		09/28/24 08:00	09/30/24 21:11	1
Calcium	69000		1000	250	ug/L		09/28/24 08:00	09/30/24 21:11	1
Chromium	4.9	J	5.0	1.2	ug/L		09/28/24 08:00	09/30/24 21:11	1
Cobalt	0.73	J	1.0	0.086	ug/L		09/28/24 08:00	09/30/24 21:11	1
Lead	0.71	J	1.0	0.45	ug/L		09/28/24 08:00	09/30/24 21:11	1
Lithium	16		8.0	3.4	ug/L		09/28/24 08:00	09/30/24 21:11	1
Magnesium	18000		1000	61	ug/L		09/28/24 08:00	09/30/24 21:11	1
Molybdenum	43		5.0	1.1	ug/L		09/28/24 08:00	09/30/24 21:11	1
Potassium	2900		1000	220	ug/L		09/28/24 08:00	09/30/24 21:11	1
Selenium	2.8	J	5.0	0.89	ug/L		09/28/24 08:00	09/30/24 21:11	1
Sodium	450000		1000	880	ug/L		09/28/24 08:00	09/30/24 21:11	1
Thallium	ND	*+ ^1+	1.0	0.51	ug/L		09/28/24 08:00	09/30/24 21:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	62		1.0	0.13	mg/L			10/09/24 14:09	1
Fluoride (EPA 300.0)	0.62		0.050	0.024	mg/L			10/09/24 14:09	1
Sulfate (EPA 300.0)	690		10	3.5	mg/L			10/09/24 14:28	10
Total Dissolved Solids (SM 2540C)	1500		20	16	mg/L			09/30/24 08:38	1

Client Sample Results

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Client Sample ID: 2018-03-F-20240924-01
Date Collected: 09/24/24 13:00
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211970-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	510		100	57	ug/L		09/28/24 08:00	10/01/24 04:28	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/24 08:00	09/30/24 21:14	1
Arsenic	8.4		5.0	0.75	ug/L		09/28/24 08:00	09/30/24 21:14	1
Barium	250		5.0	0.77	ug/L		09/28/24 08:00	09/30/24 21:14	1
Beryllium	ND		1.0	0.27	ug/L		09/28/24 08:00	09/30/24 21:14	1
Cadmium	0.11	J	1.0	0.077	ug/L		09/28/24 08:00	09/30/24 21:14	1
Calcium	21000		1000	250	ug/L		09/28/24 08:00	09/30/24 21:14	1
Chromium	8.6		5.0	1.2	ug/L		09/28/24 08:00	09/30/24 21:14	1
Cobalt	2.4		1.0	0.086	ug/L		09/28/24 08:00	09/30/24 21:14	1
Lead	3.2		1.0	0.45	ug/L		09/28/24 08:00	09/30/24 21:14	1
Lithium	34		8.0	3.4	ug/L		09/28/24 08:00	09/30/24 21:14	1
Magnesium	6300		1000	61	ug/L		09/28/24 08:00	09/30/24 21:14	1
Molybdenum	4.2	J	5.0	1.1	ug/L		09/28/24 08:00	09/30/24 21:14	1
Potassium	2700		1000	220	ug/L		09/28/24 08:00	09/30/24 21:14	1
Selenium	ND		5.0	0.89	ug/L		09/28/24 08:00	09/30/24 21:14	1
Sodium	1200000		10000	8800	ug/L		09/28/24 08:00	10/02/24 09:42	10
Thallium	ND	*+ ^1+	1.0	0.51	ug/L		09/28/24 08:00	09/30/24 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	1300		20	2.6	mg/L			10/09/24 15:55	20
Fluoride (EPA 300.0)	0.97		0.25	0.12	mg/L			10/09/24 14:48	5
Sulfate (EPA 300.0)	990		5.0	1.7	mg/L			10/09/24 14:48	5
Total Dissolved Solids (SM 2540C)	3800		40	31	mg/L			09/30/24 08:38	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Client Sample ID: 2018-02-F-20240924-01

Date Collected: 09/24/24 13:55
Date Received: 09/27/24 08:00

Lab Sample ID: 240-211970-3

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	340		100	57	ug/L		09/28/24 08:00	10/01/24 04:32	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.69	J	2.0	0.57	ug/L		09/28/24 08:00	09/30/24 21:16	1
Arsenic	5.2		5.0	0.75	ug/L		09/28/24 08:00	09/30/24 21:16	1
Barium	700		5.0	0.77	ug/L		09/28/24 08:00	09/30/24 21:16	1
Beryllium	0.27	J	1.0	0.27	ug/L		09/28/24 08:00	09/30/24 21:16	1
Cadmium	0.098	J	1.0	0.077	ug/L		09/28/24 08:00	09/30/24 21:16	1
Calcium	51000		1000	250	ug/L		09/28/24 08:00	09/30/24 21:16	1
Chromium	63		5.0	1.2	ug/L		09/28/24 08:00	09/30/24 21:16	1
Cobalt	2.9		1.0	0.086	ug/L		09/28/24 08:00	09/30/24 21:16	1
Lead	3.2		1.0	0.45	ug/L		09/28/24 08:00	09/30/24 21:16	1
Lithium	57		8.0	3.4	ug/L		09/28/24 08:00	09/30/24 21:16	1
Magnesium	15000		1000	61	ug/L		09/28/24 08:00	09/30/24 21:16	1
Molybdenum	77		5.0	1.1	ug/L		09/28/24 08:00	09/30/24 21:16	1
Potassium	4700		1000	220	ug/L		09/28/24 08:00	09/30/24 21:16	1
Selenium	ND		5.0	0.89	ug/L		09/28/24 08:00	09/30/24 21:16	1
Sodium	2000000		10000	8800	ug/L		09/28/24 08:00	10/02/24 09:45	10
Thallium	ND	*+ ^1+	1.0	0.51	ug/L		09/28/24 08:00	09/30/24 21:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	3200		25	3.2	mg/L			10/09/24 16:35	25
Fluoride (EPA 300.0)	1.2		0.25	0.12	mg/L			10/09/24 16:15	5
Sulfate (EPA 300.0)	160		5.0	1.7	mg/L			10/09/24 16:15	5
Total Dissolved Solids (SM 2540C)	5100		50	39	mg/L			09/30/24 08:38	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-628759/1-A
Matrix: Water
Analysis Batch: 629046

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628759

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		09/28/24 08:00	10/01/24 03:08	1

Lab Sample ID: LCS 240-628759/2-A
Matrix: Water
Analysis Batch: 629046

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1080		ug/L		108	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-628759/1-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 628759

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		09/28/24 08:00	09/30/24 20:31	1
Arsenic	ND		5.0	0.75	ug/L		09/28/24 08:00	09/30/24 20:31	1
Barium	ND		5.0	0.77	ug/L		09/28/24 08:00	09/30/24 20:31	1
Beryllium	ND		1.0	0.27	ug/L		09/28/24 08:00	09/30/24 20:31	1
Cadmium	ND		1.0	0.077	ug/L		09/28/24 08:00	09/30/24 20:31	1
Calcium	ND		1000	250	ug/L		09/28/24 08:00	09/30/24 20:31	1
Chromium	ND		5.0	1.2	ug/L		09/28/24 08:00	09/30/24 20:31	1
Cobalt	ND		1.0	0.086	ug/L		09/28/24 08:00	09/30/24 20:31	1
Lead	ND		1.0	0.45	ug/L		09/28/24 08:00	09/30/24 20:31	1
Lithium	ND		8.0	3.4	ug/L		09/28/24 08:00	09/30/24 20:31	1
Magnesium	ND		1000	61	ug/L		09/28/24 08:00	09/30/24 20:31	1
Molybdenum	ND		5.0	1.1	ug/L		09/28/24 08:00	09/30/24 20:31	1
Potassium	ND		1000	220	ug/L		09/28/24 08:00	09/30/24 20:31	1
Selenium	ND		5.0	0.89	ug/L		09/28/24 08:00	09/30/24 20:31	1
Sodium	ND		1000	880	ug/L		09/28/24 08:00	09/30/24 20:31	1
Thallium	ND	^1+	1.0	0.51	ug/L		09/28/24 08:00	09/30/24 20:31	1

Lab Sample ID: LCS 240-628759/3-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.8		ug/L		100	80 - 120
Arsenic	1000	921		ug/L		92	80 - 120
Barium	1000	997		ug/L		100	80 - 120
Beryllium	500	503		ug/L		101	80 - 120
Cadmium	500	488		ug/L		98	80 - 120
Calcium	25000	24800		ug/L		99	80 - 120
Chromium	500	497		ug/L		99	80 - 120
Cobalt	500	473		ug/L		95	80 - 120
Lead	500	481		ug/L		96	80 - 120
Lithium	500	500		ug/L		100	80 - 120
Magnesium	25000	24100		ug/L		96	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-628759/3-A
Matrix: Water
Analysis Batch: 629048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 628759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	489		ug/L		98	80 - 120
Potassium	25000	24500		ug/L		98	80 - 120
Selenium	1000	997		ug/L		100	80 - 120
Sodium	25000	24600		ug/L		99	80 - 120
Thallium	1000	1220	*+ ^1+	ug/L		122	80 - 120

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-629940/3
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 03:57	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 03:57	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 03:57	1

Lab Sample ID: LCS 240-629940/4
Matrix: Water
Analysis Batch: 629940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.9		mg/L		102	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-628882/1
Matrix: Water
Analysis Batch: 628882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			09/30/24 08:38	1

Lab Sample ID: LCS 240-628882/2
Matrix: Water
Analysis Batch: 628882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	679		mg/L		94	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells

Job ID: 240-211970-1

Metals

Prep Batch: 628759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211970-1	2018-04-F-20240924-01	Total Recoverable	Water	3005A	
240-211970-2	2018-03-F-20240924-01	Total Recoverable	Water	3005A	
240-211970-3	2018-02-F-20240924-01	Total Recoverable	Water	3005A	
MB 240-628759/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-628759/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-628759/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 629046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211970-1	2018-04-F-20240924-01	Total Recoverable	Water	6010D	628759
240-211970-2	2018-03-F-20240924-01	Total Recoverable	Water	6010D	628759
240-211970-3	2018-02-F-20240924-01	Total Recoverable	Water	6010D	628759
MB 240-628759/1-A	Method Blank	Total Recoverable	Water	6010D	628759
LCS 240-628759/2-A	Lab Control Sample	Total Recoverable	Water	6010D	628759

Analysis Batch: 629048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211970-1	2018-04-F-20240924-01	Total Recoverable	Water	6020B	628759
240-211970-2	2018-03-F-20240924-01	Total Recoverable	Water	6020B	628759
240-211970-3	2018-02-F-20240924-01	Total Recoverable	Water	6020B	628759
MB 240-628759/1-A	Method Blank	Total Recoverable	Water	6020B	628759
LCS 240-628759/3-A	Lab Control Sample	Total Recoverable	Water	6020B	628759

Analysis Batch: 629283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211970-2	2018-03-F-20240924-01	Total Recoverable	Water	6020B	628759
240-211970-3	2018-02-F-20240924-01	Total Recoverable	Water	6020B	628759

General Chemistry

Analysis Batch: 628882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211970-1	2018-04-F-20240924-01	Total/NA	Water	SM 2540C	
240-211970-2	2018-03-F-20240924-01	Total/NA	Water	SM 2540C	
240-211970-3	2018-02-F-20240924-01	Total/NA	Water	SM 2540C	
MB 240-628882/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-628882/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-211970-1	2018-04-F-20240924-01	Total/NA	Water	300.0	
240-211970-1	2018-04-F-20240924-01	Total/NA	Water	300.0	
240-211970-2	2018-03-F-20240924-01	Total/NA	Water	300.0	
240-211970-2	2018-03-F-20240924-01	Total/NA	Water	300.0	
240-211970-3	2018-02-F-20240924-01	Total/NA	Water	300.0	
240-211970-3	2018-02-F-20240924-01	Total/NA	Water	300.0	
MB 240-629940/3	Method Blank	Total/NA	Water	300.0	
LCS 240-629940/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211970-1
Project/Site: Federal CCR Wells

Client Sample ID: 2018-04-F-20240924-01
Lab Sample ID: 240-211970-1

Date Collected: 09/24/24 12:00
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6010D		1	629046	RKT	EET CLE	10/01/24 04:24
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 21:11
Total/NA	Analysis	300.0		1	629940	JMR	EET CLE	10/09/24 14:09
Total/NA	Analysis	300.0		10	629940	JMR	EET CLE	10/09/24 14:28
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38

Client Sample ID: 2018-03-F-20240924-01
Lab Sample ID: 240-211970-2

Date Collected: 09/24/24 13:00
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6010D		1	629046	RKT	EET CLE	10/01/24 04:28
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 21:14
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6020B		10	629283	AJC	EET CLE	10/02/24 09:42
Total/NA	Analysis	300.0		5	629940	JMR	EET CLE	10/09/24 14:48
Total/NA	Analysis	300.0		20	629940	JMR	EET CLE	10/09/24 15:55
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38

Client Sample ID: 2018-02-F-20240924-01
Lab Sample ID: 240-211970-3

Date Collected: 09/24/24 13:55
Matrix: Water
Date Received: 09/27/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6010D		1	629046	RKT	EET CLE	10/01/24 04:32
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6020B		1	629048	AJC	EET CLE	09/30/24 21:16
Total Recoverable	Prep	3005A			628759	BN	EET CLE	09/28/24 08:00
Total Recoverable	Analysis	6020B		10	629283	AJC	EET CLE	10/02/24 09:45
Total/NA	Analysis	300.0		5	629940	JMR	EET CLE	10/09/24 16:15
Total/NA	Analysis	300.0		25	629940	JMR	EET CLE	10/09/24 16:35
Total/NA	Analysis	SM 2540C		1	628882	TAV2	EET CLE	09/30/24 08:38

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-211970-1
Project/Site: Federal CCR Wells

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Columbus
209

Eurofins TestAmerica, Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Bobby Custo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93018-34502
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #:			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal - CCR Wells Snap Sampler-	Project #: 24019633			
Site: Ohio	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0, SM2540C	6020a, 6020b	Total Number of containers	Limited Volume App III and IV (Unpreserved with focus on TDS, Cl-, SO4 and F) Nitric Acid with focus on Ca and B)
			Preservation Code:				N	D		
2018-04-F-20240924-01	9-24-24	1200	G	W	N	N	1	1		* Extra Sample collected in 250 ml unpreserved bottle *
2018-03-F-20240924-01	9-24-24	1300	G	W	N	N	1	1		
2018-02-F-20240924-01	9-24-24	1355	G	W	N	N	1	1		

240-211970 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained long
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	9-26-24 / 0920	KEMPER	Ashley Deal	9.26.24 1110	ETA
Ashley Deal	9.26.24 1700	ETA	KATHARINE MARTIN	9/27/24 800	EUR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Site Name

Cooler Received on 9/27/24 Opened on 9/27/24

Cooler unpacked by: ICM

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 22 (CF -0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form			
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 22	2.1	2.0	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 22	1.2	1.1	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	8.1	8.0	Wet Ice Blue Ice Dry Ice Water (None)
(EC) Client Box Other	IR GUN #:	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.9	1.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.9	1.8	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.8	1.7	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #:	1.0	0.9	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
☐ See Temperature Excursion Form				

9/27/2024

Login Container Summary Report

240-211970

10/10/2024

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2018-04-F-20240924-01	240-211970-A-1	Plastic 250ml - unpreserved				
2018-04-F-20240924-01	240-211970-B-1	Plastic 250ml - unpreserved				
2018-04-F-20240924-01	240-211970-C-1	Plastic 250ml - with Nitric Acid	<2			
2018-03-F-20240924-01	240-211970-A-2	Plastic 250ml - unpreserved				
2018-03-F-20240924-01	240-211970-B-2	Plastic 250ml - unpreserved				
2018-03-F-20240924-01	240-211970-C-2	Plastic 250ml - with Nitric Acid	<2			
2018-02-F-20240924-01	240-211970-A-3	Plastic 250ml - unpreserved				
2018-02-F-20240924-01	240-211970-B-3	Plastic 250ml - unpreserved				
2018-02-F-20240924-01	240-211970-C-3	Plastic 250ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 11/7/2024 1:24:16 PM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-212122-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



Generated
11/7/2024 1:24:16 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-212122-1 — Eurofins Cleveland

Job Narrative
240-212122-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/1/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.3°C and 3.0°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-03-F-20240927-01 (240-212122-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium 228 Batch 682002

The method blank (MB) exhibits activity above the requested limit (RL) for Radium-228. Associated sample(s) have activity below the RL. The data for the following samples have been reported with this narrative: FIELDBLANK-001-F-20240926-01 (240-212122-3), EB-001-F-20240926-01 (240-212122-4) and (180-180302-AE-2-B)

Method 9320_Ra228: Radium-228 prep batch 160-685414
Insufficient sample volume was available to perform a sample duplicate for the following samples: 2022-13-F-20240926-01 (240-212122-2), 2022-03-F-20240927-01 (240-212122-5), 94136-F-20240927-01 (240-212122-6) and 94137-F-20240927-01 (240-212122-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9320_Ra228: Radium 228 batch 685414
The LCS recovered at (133%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (69-145%) per method requirements. The LCS passes, no further action is required (LCS 160-685414/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212122-1
Project/Site: Gavin CCR

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-212122-1	2022-12-F-20240926-01	Water	09/26/24 13:12	10/01/24 08:00
240-212122-2	2022-13-F-20240926-01	Water	09/26/24 14:20	10/01/24 08:00
240-212122-3	FIELDBLANK-001-F-20240926-01	Water	09/26/24 15:00	10/01/24 08:00
240-212122-4	EB-001-F-20240926-01	Water	09/26/24 15:10	10/01/24 08:00
240-212122-5	2022-03-F-20240927-01	Water	09/27/24 10:29	10/01/24 08:00
240-212122-6	94136-F-20240927-01	Water	09/27/24 13:54	10/01/24 08:00
240-212122-7	94137-F-20240927-01	Water	09/27/24 12:34	10/01/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Client Sample ID: 2022-12-F-20240926-01 — Lab Sample ID: 240-212122-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	77	J	100	57	ug/L	1		6010D	Total Recoverable
Barium	16		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	84000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.6	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.35	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	19		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	25000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	16		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.12		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	250		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	680		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-13-F-20240926-01 — Lab Sample ID: 240-212122-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	320		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	760		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.14	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	40000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.24	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	47		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	11000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	42		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2200000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3300		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.0		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	6.5		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	5100		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Client Sample ID: FIELDBLANK-001-F-20240926-01 — Lab Sample ID: 240-212122-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	0.50	J	1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	16		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-001-F-20240926-01 — Lab Sample ID: 240-212122-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	0.39	J	1.0	0.35	mg/L	1		300.0	Total/NA

Client Sample ID: 2022-03-F-20240927-01 — Lab Sample ID: 240-212122-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	780		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.45	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	350000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	1.6		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.62	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	640		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	150000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	180		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.9	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	9300000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	180		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	17000		100	13	mg/L	100		300.0	Total/NA
Sulfate	250		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	23000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94136-F-20240927-01 — Lab Sample ID: 240-212122-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	410		100	57	ug/L	1		6010D	Total Recoverable
Antimony	1.1	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	120		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.080	J	1.0	0.077	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 94136-F-20240927-01 (Continued)

Lab Sample ID: 240-212122-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	14000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	11		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.72	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.62	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	28		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	3800		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	17		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	790000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	910		5.0	0.64	mg/L	5		300.0	Total/NA
Fluoride	1.5		0.10	0.048	mg/L	2		300.0	Total/NA
Sulfate	59		2.0	0.70	mg/L	2		300.0	Total/NA
Total Dissolved Solids	1800		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 94137-F-20240927-01

Lab Sample ID: 240-212122-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.85	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	50		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.20	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	150000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	6.6		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	370		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	10		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	52000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.7	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	1900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	67000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	28		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	340		5.0	1.7	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 94137-F-20240927-01 (Continued)
Lab Sample ID: 240-212122-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	610		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-12-F-20240926-01
Date Collected: 09/26/24 13:12
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**77**	**J**	100	57	ug/L		10/01/24 14:00	10/03/24 02:46	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:48	1
Arsenic	ND		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:48	1
Barium	**16**		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:48	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:48	1
Cadmium	ND		1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:48	1
Calcium	**84000**		1000	250	ug/L		10/01/24 14:00	10/02/24 22:48	1
Chromium	**1.6**	**J**	5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:48	1
Cobalt	**0.35**	**J**	1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:48	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:48	1
Lithium	**19**		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:48	1
Magnesium	**25000**		1000	61	ug/L		10/01/24 14:00	10/02/24 22:48	1
Molybdenum	ND		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:48	1
Potassium	**3200**		1000	220	ug/L		10/01/24 14:00	10/02/24 22:48	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:48	1
Sodium	**110000**		1000	880	ug/L		10/01/24 14:00	10/02/24 22:48	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**290**		5.0	2.6	mg/L			10/03/24 16:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**290**		5.0	2.6	mg/L			10/03/24 16:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:10	1
Chloride (EPA 300.0)	**16**		1.0	0.13	mg/L			10/10/24 04:05	1
Fluoride (EPA 300.0)	**0.12**		0.050	0.024	mg/L			10/10/24 04:05	1
Sulfate (EPA 300.0)	**250**		5.0	1.7	mg/L			10/10/24 04:25	5
Total Dissolved Solids (SM 2540C)	**680**		10	7.8	mg/L			10/02/24 08:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.460**		0.266	0.269	1.00	0.341	pCi/L	10/03/24 08:53	10/25/24 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.675	U	0.504	0.508	1.00	0.766	pCi/L	10/28/24 09:10	11/06/24 12:14	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Client Sample ID: 2022-12-F-20240926-01
Date Collected: 09/26/24 13:12
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:14*	*1*
Y Carrier	*77.8*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:14*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.14**		0.570	0.575	5.00	0.766	pCi/L		11/07/24 11:52	1

Client Sample ID: 2022-13-F-20240926-01
Date Collected: 09/26/24 14:20
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	320		100	57	ug/L		10/01/24 14:00	10/03/24 02:51	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:50	1
Arsenic	1.5	J	5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:50	1
Barium	760		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:50	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:50	1
Cadmium	0.14	J	1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:50	1
Calcium	40000		1000	250	ug/L		10/01/24 14:00	10/02/24 22:50	1
Chromium	ND		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:50	1
Cobalt	0.24	J	1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:50	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:50	1
Lithium	47		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:50	1
Magnesium	11000		1000	61	ug/L		10/01/24 14:00	10/02/24 22:50	1
Molybdenum	42		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:50	1
Potassium	4200		1000	220	ug/L		10/01/24 14:00	10/02/24 22:50	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:50	1
Sodium	2200000		10000	8800	ug/L		10/01/24 14:00	10/25/24 12:11	10
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:50	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			10/03/24 16:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			10/03/24 16:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:23	1
Chloride (EPA 300.0)	3300		25	3.2	mg/L			10/10/24 05:04	25
Fluoride (EPA 300.0)	1.0		0.25	0.12	mg/L			10/10/24 04:45	5
Sulfate (EPA 300.0)	6.5		5.0	1.7	mg/L			10/10/24 04:45	5
Total Dissolved Solids (SM 2540C)	5100		50	39	mg/L			10/02/24 08:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.832		0.268	0.278	1.00	0.234	pCi/L	10/03/24 08:53	10/25/24 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.787		0.433	0.439	1.00	0.613	pCi/L	10/28/24 09:10	11/06/24 12:14	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Client Sample ID: 2022-13-F-20240926-01
Date Collected: 09/26/24 14:20
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:14*	*1*
Y Carrier	*75.5*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:14*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.62**		0.509	0.520	5.00	0.613	pCi/L		11/07/24 11:52	1

Client Sample ID: FIELDBLANK-001-F-20240926-01
Date Collected: 09/26/24 15:00
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-3
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/01/24 14:00	10/03/24 02:55	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:53	1
Arsenic	ND		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:53	1
Barium	ND		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:53	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:53	1
Cadmium	ND		1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:53	1
Calcium	ND		1000	250	ug/L		10/01/24 14:00	10/02/24 22:53	1
Chromium	ND		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:53	1
Cobalt	ND		1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:53	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:53	1
Lithium	ND		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:53	1
Magnesium	ND		1000	61	ug/L		10/01/24 14:00	10/02/24 22:53	1
Molybdenum	ND		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:53	1
Potassium	ND		1000	220	ug/L		10/01/24 14:00	10/02/24 22:53	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:53	1
Sodium	ND		1000	880	ug/L		10/01/24 14:00	10/02/24 22:53	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:53	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:27	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:27	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/10/24 05:24	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/10/24 05:24	1
Sulfate (EPA 300.0)	**0.50**	**J**	1.0	0.35	mg/L			10/10/24 05:24	1
Total Dissolved Solids (SM 2540C)	**16**		10	7.8	mg/L			10/02/24 08:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0683	U	0.120	0.120	1.00	0.215	pCi/L	10/03/24 08:53	10/25/24 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.555	U	0.420	0.423	1.00	0.645	pCi/L	10/03/24 08:57	10/24/24 11:34	1

Client Sample ID: FIELDBLANK-001-F-20240926-01
Date Collected: 09/26/24 15:00
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-3
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.3*		*30 - 110*	*10/03/24 08:57*	*10/24/24 11:34*	*1*
Y Carrier	*73.6*		*30 - 110*	*10/03/24 08:57*	*10/24/24 11:34*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.623	U	0.437	0.440	5.00	0.645	pCi/L		11/07/24 11:52	1

Client Sample ID: EB-001-F-20240926-01
Date Collected: 09/26/24 15:10
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-4
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/01/24 14:00	10/03/24 02:59	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:56	1
Arsenic	ND		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:56	1
Barium	ND		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:56	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:56	1
Cadmium	ND		1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:56	1
Calcium	ND		1000	250	ug/L		10/01/24 14:00	10/02/24 22:56	1
Chromium	ND		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:56	1
Cobalt	ND		1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:56	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:56	1
Lithium	ND		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:56	1
Magnesium	ND		1000	61	ug/L		10/01/24 14:00	10/02/24 22:56	1
Molybdenum	ND		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:56	1
Potassium	ND		1000	220	ug/L		10/01/24 14:00	10/02/24 22:56	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:56	1
Sodium	ND		1000	880	ug/L		10/01/24 14:00	10/02/24 22:56	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:31	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:31	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:31	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/10/24 05:44	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/10/24 05:44	1
Sulfate (EPA 300.0)	**0.39**	**J**	1.0	0.35	mg/L			10/10/24 05:44	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			10/02/24 08:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.146	U	0.170	0.171	1.00	0.277	pCi/L	10/03/24 08:53	10/25/24 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:29*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.565	U	0.384	0.387	1.00	0.573	pCi/L	10/03/24 08:57	10/24/24 11:34	1

Client Sample ID: EB-001-F-20240926-01
Date Collected: 09/26/24 15:10
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-4
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/03/24 08:57*	*10/24/24 11:34*	*1*
Y Carrier	*79.6*		*30 - 110*	*10/03/24 08:57*	*10/24/24 11:34*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.711**		0.420	0.423	5.00	0.573	pCi/L		11/07/24 11:52	1

Client Sample ID: 2022-03-F-20240927-01
Date Collected: 09/27/24 10:29
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-5
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		10/01/24 14:00	10/03/24 03:04	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:58	1
Arsenic	1.3	J	5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:58	1
Barium	780		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:58	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:58	1
Cadmium	0.45	J	1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:58	1
Calcium	350000		1000	250	ug/L		10/01/24 14:00	10/02/24 22:58	1
Chromium	ND		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:58	1
Cobalt	1.6		1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:58	1
Lead	0.62	J	1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:58	1
Lithium	640		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:58	1
Magnesium	150000		1000	61	ug/L		10/01/24 14:00	10/02/24 22:58	1
Molybdenum	180		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:58	1
Potassium	24000		1000	220	ug/L		10/01/24 14:00	10/02/24 22:58	1
Selenium	2.9	J	5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:58	1
Sodium	9300000		10000	8800	ug/L		10/01/24 14:00	10/25/24 12:13	10
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:58	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	180		5.0	2.6	mg/L			10/03/24 16:35	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	180		5.0	2.6	mg/L			10/03/24 16:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:35	1
Chloride (EPA 300.0)	17000		100	13	mg/L			10/10/24 06:43	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/10/24 06:43	100
Sulfate (EPA 300.0)	250		100	35	mg/L			10/10/24 06:43	100
Total Dissolved Solids (SM 2540C)	23000		1000	780	mg/L			10/04/24 09:05	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.54		0.341	0.368	1.00	0.243	pCi/L	10/03/24 08:53	10/25/24 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.0*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:34*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.18		0.623	0.688	1.00	0.576	pCi/L	10/28/24 09:10	11/06/24 12:15	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Client Sample ID: 2022-03-F-20240927-01
Date Collected: 09/27/24 10:29
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-5
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.4*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*
Y Carrier	*81.1*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**4.71**		0.710	0.780	5.00	0.576	pCi/L		11/07/24 11:52	1

Client Sample ID: 94136-F-20240927-01

Date Collected: 09/27/24 13:54
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-6

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	410		100	57	ug/L		10/01/24 14:00	10/03/24 03:08	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.57	ug/L		10/01/24 14:00	10/02/24 23:01	1
Arsenic	1.7	J	5.0	0.75	ug/L		10/01/24 14:00	10/02/24 23:01	1
Barium	120		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 23:01	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 23:01	1
Cadmium	0.080	J	1.0	0.077	ug/L		10/01/24 14:00	10/02/24 23:01	1
Calcium	14000		1000	250	ug/L		10/01/24 14:00	10/02/24 23:01	1
Chromium	11		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 23:01	1
Cobalt	0.72	J	1.0	0.086	ug/L		10/01/24 14:00	10/02/24 23:01	1
Lead	0.62	J	1.0	0.45	ug/L		10/01/24 14:00	10/02/24 23:01	1
Lithium	28		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 23:01	1
Magnesium	3800		1000	61	ug/L		10/01/24 14:00	10/02/24 23:01	1
Molybdenum	17		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 23:01	1
Potassium	2200		1000	220	ug/L		10/01/24 14:00	10/02/24 23:01	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 23:01	1
Sodium	790000		1000	880	ug/L		10/01/24 14:00	10/02/24 23:01	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 23:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	350		5.0	2.6	mg/L			10/03/24 16:40	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350		5.0	2.6	mg/L			10/03/24 16:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:40	1
Chloride (EPA 300.0)	910		5.0	0.64	mg/L			10/24/24 05:19	5
Fluoride (EPA 300.0)	1.5		0.10	0.048	mg/L			10/10/24 08:02	2
Sulfate (EPA 300.0)	59		2.0	0.70	mg/L			10/10/24 08:02	2
Total Dissolved Solids (SM 2540C)	1800		50	39	mg/L			10/03/24 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.349		0.215	0.217	1.00	0.290	pCi/L	10/03/24 08:53	10/25/24 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:34*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.681		0.350	0.355	1.00	0.477	pCi/L	10/28/24 09:10	11/06/24 12:15	1

Client Sample ID: 94136-F-20240927-01
Date Collected: 09/27/24 13:54
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-6
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*
Y Carrier	*86.7*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.03**		0.411	0.416	5.00	0.477	pCi/L		11/07/24 11:52	1

Client Sample ID: 94137-F-20240927-01
Date Collected: 09/27/24 12:34
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-7
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/01/24 14:00	10/03/24 03:12	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.85	J	2.0	0.57	ug/L		10/01/24 14:00	10/02/24 23:04	1
Arsenic	2.6	J	5.0	0.75	ug/L		10/01/24 14:00	10/02/24 23:04	1
Barium	50		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 23:04	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 23:04	1
Cadmium	0.20	J	1.0	0.077	ug/L		10/01/24 14:00	10/02/24 23:04	1
Calcium	150000		1000	250	ug/L		10/01/24 14:00	10/02/24 23:04	1
Chromium	6.6		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 23:04	1
Cobalt	370		1.0	0.086	ug/L		10/01/24 14:00	10/02/24 23:04	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 23:04	1
Lithium	10		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 23:04	1
Magnesium	52000		1000	61	ug/L		10/01/24 14:00	10/02/24 23:04	1
Molybdenum	1.7	J	5.0	1.1	ug/L		10/01/24 14:00	10/02/24 23:04	1
Potassium	1900		1000	220	ug/L		10/01/24 14:00	10/02/24 23:04	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 23:04	1
Sodium	67000		1000	880	ug/L		10/01/24 14:00	10/02/24 23:04	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 23:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	350		5.0	2.6	mg/L			10/03/24 16:46	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	350		5.0	2.6	mg/L			10/03/24 16:46	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/03/24 16:46	1
Chloride (EPA 300.0)	28		1.0	0.13	mg/L			10/10/24 08:41	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			10/10/24 08:41	1
Sulfate (EPA 300.0)	340		5.0	1.7	mg/L			10/10/24 09:01	5
Total Dissolved Solids (SM 2540C)	610		20	16	mg/L			10/03/24 08:27	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0461	U	0.180	0.180	1.00	0.341	pCi/L	10/03/24 08:53	10/25/24 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.3*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:34*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.849		0.405	0.413	1.00	0.540	pCi/L	10/28/24 09:10	11/06/24 12:15	1

Client Sample ID: 94137-F-20240927-01
Date Collected: 09/27/24 12:34
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212122-7
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*
Y Carrier	*78.5*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.895**		0.443	0.451	5.00	0.540	pCi/L		11/07/24 11:52	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-212122-1	2022-12-F-20240926-01	85.8
240-212122-2	2022-13-F-20240926-01	93.3
240-212122-3	FIELDBLANK-001-F-20240926-01	85.3
240-212122-4	EB-001-F-20240926-01	84.8
240-212122-5	2022-03-F-20240927-01	99.0
240-212122-6	94136-F-20240927-01	88.7
240-212122-7	94137-F-20240927-01	75.3
LCS 160-682001/2-A	Lab Control Sample	73.5
MB 160-682001/1-A	Method Blank	83.0

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-212122-1	2022-12-F-20240926-01	88.0	77.8
240-212122-2	2022-13-F-20240926-01	88.5	75.5
240-212122-3	FIELDBLANK-001-F-20240926-01	85.3	73.6
240-212122-4	EB-001-F-20240926-01	84.8	79.6
240-212122-5	2022-03-F-20240927-01	92.4	81.1
240-212122-6	94136-F-20240927-01	91.0	86.7
240-212122-7	94137-F-20240927-01	89.7	78.5
LCS 160-682002/2-A	Lab Control Sample	73.5	78.5
LCS 160-685414/2-A	Lab Control Sample	85.6	83.0
LCSD 160-685414/3-A	Lab Control Sample Dup	94.1	89.3
MB 160-682002/1-A	Method Blank	83.0	82.2
MB 160-685414/1-A	Method Blank	86.1	83.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-629092/1-A
Matrix: Water
Analysis Batch: 629324

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/01/24 14:00	10/03/24 02:00	1

Lab Sample ID: LCS 240-629092/2-A
Matrix: Water
Analysis Batch: 629324

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-629092/1-A
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:12	1
Arsenic	ND		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:12	1
Barium	ND		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:12	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:12	1
Cadmium	ND		1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:12	1
Calcium	ND		1000	250	ug/L		10/01/24 14:00	10/02/24 22:12	1
Chromium	ND		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:12	1
Cobalt	ND		1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:12	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:12	1
Lithium	ND		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:12	1
Magnesium	ND		1000	61	ug/L		10/01/24 14:00	10/02/24 22:12	1
Molybdenum	ND		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:12	1
Potassium	ND		1000	220	ug/L		10/01/24 14:00	10/02/24 22:12	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:12	1
Sodium	ND		1000	880	ug/L		10/01/24 14:00	10/02/24 22:12	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:12	1

Lab Sample ID: LCS 240-629092/3-A
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	104		ug/L		104	80 - 120
Arsenic	1000	943		ug/L		94	80 - 120
Barium	1000	1030		ug/L		103	80 - 120
Beryllium	500	513		ug/L		103	80 - 120
Cadmium	500	507		ug/L		101	80 - 120
Calcium	25000	25600		ug/L		103	80 - 120
Chromium	500	504		ug/L		101	80 - 120
Cobalt	500	467		ug/L		93	80 - 120
Lead	500	485		ug/L		97	80 - 120
Lithium	500	511		ug/L		102	80 - 120
Magnesium	25000	26200		ug/L		105	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-629092/3-A
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	498		ug/L		100	80 - 120
Potassium	25000	26400		ug/L		105	80 - 120
Selenium	1000	1040		ug/L		104	80 - 120
Sodium	25000	26500		ug/L		106	80 - 120
Thallium	1000	1200		ug/L		120	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-629095/1-A
Matrix: Water
Analysis Batch: 629310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:00	1

Lab Sample ID: LCS 240-629095/2-A
Matrix: Water
Analysis Batch: 629310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.00		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-629587/28
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/03/24 17:28	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 17:28	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 17:28	1

Lab Sample ID: MB 240-629587/4
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/03/24 15:17	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 15:17	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 15:17	1

Lab Sample ID: MB 240-629587/52
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/03/24 19:36	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 19:36	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 19:36	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-629587/27
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	276		mg/L		99	86 - 123

Lab Sample ID: LCS 240-629587/3
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		97	86 - 123

Lab Sample ID: LCS 240-629587/51
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Lab Sample ID: 240-212122-2 DU
Matrix: Water
Analysis Batch: 629587

Client Sample ID: 2022-13-F-20240926-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	170		174		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	170		174		mg/L		0.2	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630106/3
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 20:12	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 20:12	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 20:12	1

Lab Sample ID: LCS 240-630106/4
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-212122-4 MS
Matrix: Water
Analysis Batch: 630106

Client Sample ID: EB-001-F-20240926-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		50.0	50.2		mg/L		100	80 - 120
Fluoride	ND		2.50	2.59		mg/L		104	80 - 120
Sulfate	0.39	J	50.0	51.5		mg/L		102	80 - 120

Lab Sample ID: 240-212122-4 MSD
Matrix: Water
Analysis Batch: 630106

Client Sample ID: EB-001-F-20240926-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	50.2		mg/L		100	80 - 120	0	15
Fluoride	ND		2.50	2.59		mg/L		104	80 - 120	0	15
Sulfate	0.39	J	50.0	51.5		mg/L		102	80 - 120	0	15

Lab Sample ID: MB 240-632166/3
Matrix: Water
Analysis Batch: 632166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/24/24 01:37	1
Fluoride	ND		0.050	0.024	mg/L			10/24/24 01:37	1
Sulfate	ND		1.0	0.35	mg/L			10/24/24 01:37	1

Lab Sample ID: LCS 240-632166/4
Matrix: Water
Analysis Batch: 632166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	48.7		mg/L		97	90 - 110
Fluoride	2.50	2.48		mg/L		99	90 - 110
Sulfate	50.0	49.5		mg/L		99	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-629197/1
Matrix: Water
Analysis Batch: 629197

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/02/24 08:41	1

Lab Sample ID: LCS 240-629197/2
Matrix: Water
Analysis Batch: 629197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	680		mg/L		94	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 240-629359/1
Matrix: Water
Analysis Batch: 629359

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/03/24 08:27	1

Lab Sample ID: LCS 240-629359/2
Matrix: Water
Analysis Batch: 629359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	651		mg/L		90	80 - 120

Lab Sample ID: MB 240-629520/1
Matrix: Water
Analysis Batch: 629520

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/04/24 09:05	1

Lab Sample ID: LCS 240-629520/2
Matrix: Water
Analysis Batch: 629520

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	676		mg/L		94	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-682001/1-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682001

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1288	U	0.161	0.161	1.00	0.266	pCi/L	10/03/24 08:53	10/25/24 07:26	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.0*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:26*	*1*

Lab Sample ID: LCS 160-682001/2-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682001

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	10.87		1.39	1.00	0.410	pCi/L	114	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*73.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-682002/1-A
Matrix: Water
Analysis Batch: 684895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682002

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.060		0.448	0.458	1.00	0.590	pCi/L	10/03/24 08:57	10/24/24 11:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.0*		*30 - 110*	*10/03/24 08:57*	*10/24/24 11:30*	*1*
Y Carrier	*82.2*		*30 - 110*	*10/03/24 08:57*	*10/24/24 11:30*	*1*

Lab Sample ID: LCS 160-682002/2-A
Matrix: Water
Analysis Batch: 684895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682002

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.40	9.419		1.39	1.00	0.654	pCi/L	112	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*73.5*		*30 - 110*
Y Carrier	*78.5*		*30 - 110*

Lab Sample ID: MB 160-685414/1-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685414

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4201	U	0.357	0.359	1.00	0.558	pCi/L	10/28/24 09:10	11/06/24 12:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:10*	*1*
Y Carrier	*83.4*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:10*	*1*

Lab Sample ID: LCS 160-685414/2-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685414

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.37	11.14		1.50	1.00	0.645	pCi/L	133	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.6*		*30 - 110*
Y Carrier	*83.0*		*30 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-685414/3-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 685414

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228			8.37	9.372		1.25	1.00	0.486	pCi/L	112	75 - 125	0.64	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*94.1*		*30 - 110*
Y Carrier	*89.3*		*30 - 110*

Metals

Prep Batch: 629092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total Recoverable	Water	3005A	
240-212122-2	2022-13-F-20240926-01	Total Recoverable	Water	3005A	
240-212122-3	FIELDBLANK-001-F-20240926-01	Total Recoverable	Water	3005A	
240-212122-4	EB-001-F-20240926-01	Total Recoverable	Water	3005A	
240-212122-5	2022-03-F-20240927-01	Total Recoverable	Water	3005A	
240-212122-6	94136-F-20240927-01	Total Recoverable	Water	3005A	
240-212122-7	94137-F-20240927-01	Total Recoverable	Water	3005A	
MB 240-629092/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-629092/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-629092/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 629095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	7470A	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	7470A	
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	7470A	
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	7470A	
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	7470A	
240-212122-6	94136-F-20240927-01	Total/NA	Water	7470A	
240-212122-7	94137-F-20240927-01	Total/NA	Water	7470A	
MB 240-629095/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-629095/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 629310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	7470A	629095
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	7470A	629095
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	7470A	629095
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	7470A	629095
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	7470A	629095
240-212122-6	94136-F-20240927-01	Total/NA	Water	7470A	629095
240-212122-7	94137-F-20240927-01	Total/NA	Water	7470A	629095
MB 240-629095/1-A	Method Blank	Total/NA	Water	7470A	629095
LCS 240-629095/2-A	Lab Control Sample	Total/NA	Water	7470A	629095

Analysis Batch: 629324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total Recoverable	Water	6010D	629092
240-212122-2	2022-13-F-20240926-01	Total Recoverable	Water	6010D	629092
240-212122-3	FIELDBLANK-001-F-20240926-01	Total Recoverable	Water	6010D	629092
240-212122-4	EB-001-F-20240926-01	Total Recoverable	Water	6010D	629092
240-212122-5	2022-03-F-20240927-01	Total Recoverable	Water	6010D	629092
240-212122-6	94136-F-20240927-01	Total Recoverable	Water	6010D	629092
240-212122-7	94137-F-20240927-01	Total Recoverable	Water	6010D	629092
MB 240-629092/1-A	Method Blank	Total Recoverable	Water	6010D	629092
LCS 240-629092/2-A	Lab Control Sample	Total Recoverable	Water	6010D	629092

Analysis Batch: 629347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total Recoverable	Water	6020B	629092
240-212122-2	2022-13-F-20240926-01	Total Recoverable	Water	6020B	629092

Metals (Continued)

Analysis Batch: 629347 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-3	FIELDBLANK-001-F-20240926-01	Total Recoverable	Water	6020B	629092
240-212122-4	EB-001-F-20240926-01	Total Recoverable	Water	6020B	629092
240-212122-5	2022-03-F-20240927-01	Total Recoverable	Water	6020B	629092
240-212122-6	94136-F-20240927-01	Total Recoverable	Water	6020B	629092
240-212122-7	94137-F-20240927-01	Total Recoverable	Water	6020B	629092
MB 240-629092/1-A	Method Blank	Total Recoverable	Water	6020B	629092
LCS 240-629092/3-A	Lab Control Sample	Total Recoverable	Water	6020B	629092

Analysis Batch: 632529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-2	2022-13-F-20240926-01	Total Recoverable	Water	6020B	629092
240-212122-5	2022-03-F-20240927-01	Total Recoverable	Water	6020B	629092

General Chemistry

Analysis Batch: 629197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	SM 2540C	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	SM 2540C	
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	SM 2540C	
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	SM 2540C	
MB 240-629197/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-629197/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-6	94136-F-20240927-01	Total/NA	Water	SM 2540C	
240-212122-7	94137-F-20240927-01	Total/NA	Water	SM 2540C	
MB 240-629359/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-629359/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	SM 2540C	
MB 240-629520/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-629520/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	2320B-1997	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	2320B-1997	
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	2320B-1997	
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	2320B-1997	
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	2320B-1997	
240-212122-6	94136-F-20240927-01	Total/NA	Water	2320B-1997	
240-212122-7	94137-F-20240927-01	Total/NA	Water	2320B-1997	
MB 240-629587/28	Method Blank	Total/NA	Water	2320B-1997	
MB 240-629587/4	Method Blank	Total/NA	Water	2320B-1997	
MB 240-629587/52	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-629587/27	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-629587/3	Lab Control Sample	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 629587 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-629587/51	Lab Control Sample	Total/NA	Water	2320B-1997	
240-212122-2 DU	2022-13-F-20240926-01	Total/NA	Water	2320B-1997	

Analysis Batch: 630106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	300.0	
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	300.0	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	300.0	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	300.0	
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	300.0	
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	300.0	
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	300.0	
240-212122-6	94136-F-20240927-01	Total/NA	Water	300.0	
240-212122-7	94137-F-20240927-01	Total/NA	Water	300.0	
240-212122-7	94137-F-20240927-01	Total/NA	Water	300.0	
MB 240-630106/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630106/4	Lab Control Sample	Total/NA	Water	300.0	
240-212122-4 MS	EB-001-F-20240926-01	Total/NA	Water	300.0	
240-212122-4 MSD	EB-001-F-20240926-01	Total/NA	Water	300.0	

Analysis Batch: 632166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-6	94136-F-20240927-01	Total/NA	Water	300.0	
MB 240-632166/3	Method Blank	Total/NA	Water	300.0	
LCS 240-632166/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 682001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	PrecSep-21	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	PrecSep-21	
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	PrecSep-21	
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	PrecSep-21	
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	PrecSep-21	
240-212122-6	94136-F-20240927-01	Total/NA	Water	PrecSep-21	
240-212122-7	94137-F-20240927-01	Total/NA	Water	PrecSep-21	
MB 160-682001/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-682001/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 682002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-3	FIELDBLANK-001-F-20240926-01	Total/NA	Water	PrecSep_0	
240-212122-4	EB-001-F-20240926-01	Total/NA	Water	PrecSep_0	
MB 160-682002/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-682002/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 685414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-1	2022-12-F-20240926-01	Total/NA	Water	PrecSep_0	
240-212122-2	2022-13-F-20240926-01	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 685414 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212122-5	2022-03-F-20240927-01	Total/NA	Water	PrecSep_0	
240-212122-6	94136-F-20240927-01	Total/NA	Water	PrecSep_0	
240-212122-7	94137-F-20240927-01	Total/NA	Water	PrecSep_0	
MB 160-685414/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-685414/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-685414/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212122-1

Client Sample ID: 2022-12-F-20240926-01

Lab Sample ID: 240-212122-1

Date Collected: 09/26/24 13:12

Matrix: Water

Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 02:46
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 22:48
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:18
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:10
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 04:05
Total/NA	Analysis	300.0		5	630106	JMR	EET CLE	10/10/24 04:25
Total/NA	Analysis	SM 2540C		1	629197	TAV2	EET CLE	10/02/24 08:41
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685112	SWS	EET SL	10/25/24 07:29
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:14
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: 2022-13-F-20240926-01

Lab Sample ID: 240-212122-2

Date Collected: 09/26/24 14:20

Matrix: Water

Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 02:51
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 22:50
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		10	632529	AJC	EET CLE	10/25/24 12:11
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:20
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:23
Total/NA	Analysis	300.0		5	630106	JMR	EET CLE	10/10/24 04:45
Total/NA	Analysis	300.0		25	630106	JMR	EET CLE	10/10/24 05:04
Total/NA	Analysis	SM 2540C		1	629197	TAV2	EET CLE	10/02/24 08:41
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685112	SWS	EET SL	10/25/24 07:29
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:14
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: FIELDBLANK-001-F-20240926-01
Lab Sample ID: 240-212122-3

Date Collected: 09/26/24 15:00
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 02:55
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 22:53
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:22
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:27
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 05:24
Total/NA	Analysis	SM 2540C		1	629197	TAV2	EET CLE	10/02/24 08:41
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685112	SWS	EET SL	10/25/24 07:29
Total/NA	Prep	PrecSep_0			682002	BCE	EET SL	10/03/24 08:57
Total/NA	Analysis	9320		1	684895	FLC	EET SL	10/24/24 11:34
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: EB-001-F-20240926-01
Lab Sample ID: 240-212122-4

Date Collected: 09/26/24 15:10
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 02:59
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 22:56
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:23
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:31
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 05:44
Total/NA	Analysis	SM 2540C		1	629197	TAV2	EET CLE	10/02/24 08:41
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685112	SWS	EET SL	10/25/24 07:29
Total/NA	Prep	PrecSep_0			682002	BCE	EET SL	10/03/24 08:57
Total/NA	Analysis	9320		1	684895	FLC	EET SL	10/24/24 11:34
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: 2022-03-F-20240927-01
Lab Sample ID: 240-212122-5

Date Collected: 09/27/24 10:29
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 03:04
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 22:58

Client Sample ID: 2022-03-F-20240927-01
Lab Sample ID: 240-212122-5

Date Collected: 09/27/24 10:29
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		10	632529	AJC	EET CLE	10/25/24 12:13
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:25
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:35
Total/NA	Analysis	300.0		100	630106	JMR	EET CLE	10/10/24 06:43
Total/NA	Analysis	SM 2540C		1	629520	TAV2	EET CLE	10/04/24 09:05
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685116	FLC	EET SL	10/25/24 07:34
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: 94136-F-20240927-01
Lab Sample ID: 240-212122-6

Date Collected: 09/27/24 13:54
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 03:08
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 23:01
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:27
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:40
Total/NA	Analysis	300.0		2	630106	JMR	EET CLE	10/10/24 08:02
Total/NA	Analysis	300.0		5	632166	JMR	EET CLE	10/24/24 05:19
Total/NA	Analysis	SM 2540C		1	629359	TAV2	EET CLE	10/03/24 08:27
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685116	FLC	EET SL	10/25/24 07:34
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: 94137-F-20240927-01
Lab Sample ID: 240-212122-7

Date Collected: 09/27/24 12:34
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 03:12
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 23:04

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212122-1
Project/Site: Gavin CCR

Client Sample ID: 94137-F-20240927-01
Lab Sample ID: 240-212122-7
Date Collected: 09/27/24 12:34
Matrix: Water
Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:32
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:46
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 08:41
Total/NA	Analysis	300.0		5	630106	JMR	EET CLE	10/10/24 09:01
Total/NA	Analysis	SM 2540C		1	629359	TAV2	EET CLE	10/03/24 08:27
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685116	FLC	EET SL	10/25/24 07:34
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212122-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212122-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

~~152~~ ~~15.2~~ 10-1 Columbus
3-1/3.0 209

eurofins
environment Testin...

Client Information	Sampler: Bobby Cuto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	60108, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra226, Ra228Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
2022-12-F-20240926-01	9-26-24	1312	6	Water	N		1	1	2	1	1		
2022-13-F-20240926-01	9-26-24	1420	6	Water	N		1	1	2	1	1		
Field Blank-001-F-20240926-01	9-26-24	1500	6	Water	N		1	1	2	1	1		
EB-001-F-20240926-01	9-26-24	1510	6	Water	N		1	1	2	1	1		
2003-F-20240927-01	9-27-24	1029	6	Water	N		1	1	2	1	1		
				Water									
94136-F-20240927-01	9-27-24	1354	6	Water	N		1	1	2	1	1		
94137-F-20240927-01	9-27-24	1234	6	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									

240-212122 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Bobby Cuto	9-30-24/0915	KEMA	Tom Mosley	09/30/24 1125	Eurofins
Relinquished by: Tom Mosley	09/30/24 17:00	Eurofins		10/1/24 8:00	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Generation Site Name _____ Cooler unpacked by: JF

Cooler Received on 10/1/24 Opened on 10/1/24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	Yes	No (NA)
3. Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? JF	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

Sample 2003-F-20240927-01 bottles labelled as 2022-03-F-20240927-01, logging per COC.

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 17	3.1	3.0	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	2.4	2.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

10/1/2024

Login Container Summary Report

240-212122

11/7/2024

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-20240926-01	240-212122-A-1	Plastic 60 mL - unpreserved				
2022-12-F-20240926-01	240-212122-B-1	Plastic 60 mL - unpreserved				
2022-12-F-20240926-01	240-212122-C-1	Plastic 500ml - unpreserved				
2022-12-F-20240926-01	240-212122-D-1	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-20240926-01	240-212122-G-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-20240926-01	240-212122-H-1	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-20240926-01	240-212122-A-2	Plastic 60 mL - unpreserved				
2022-13-F-20240926-01	240-212122-B-2	Plastic 60 mL - unpreserved				
2022-13-F-20240926-01	240-212122-C-2	Plastic 500ml - unpreserved				
2022-13-F-20240926-01	240-212122-D-2	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-20240926-01	240-212122-E-2	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-20240926-01	240-212122-F-2	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-20240926-01	240-212122-A-3	Plastic 60 mL - unpreserved				
FIELDBLANK-001-F-20240926-01	240-212122-B-3	Plastic 60 mL - unpreserved				
FIELDBLANK-001-F-20240926-01	240-212122-C-3	Plastic 500ml - unpreserved				
FIELDBLANK-001-F-20240926-01	240-212122-D-3	Plastic 500ml - with Nitric Acid	<2			
FIELDBLANK-001-F-20240926-01	240-212122-E-3	Plastic 1 liter - Nitric Acid	<2			
FIELDBLANK-001-F-20240926-01	240-212122-F-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240926-01	240-212122-A-4	Plastic 60 mL - unpreserved				
EB-001-F-20240926-01	240-212122-B-4	Plastic 60 mL - unpreserved				
EB-001-F-20240926-01	240-212122-C-4	Plastic 500ml - unpreserved				
EB-001-F-20240926-01	240-212122-D-4	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-20240926-01	240-212122-E-4	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-20240926-01	240-212122-F-4	Plastic 1 liter - Nitric Acid	<2			
2003-F-20240927-01	240-212122-A-5	Plastic 60 mL - unpreserved				
2003-F-20240927-01	240-212122-B-5	Plastic 60 mL - unpreserved				
2003-F-20240927-01	240-212122-C-5	Plastic 500ml - unpreserved				
2003-F-20240927-01	240-212122-D-5	Plastic 500ml - with Nitric Acid	<2			
2003-F-20240927-01	240-212122-E-5	Plastic 1 liter - Nitric Acid	<2			
2003-F-20240927-01	240-212122-F-5	Plastic 1 liter - Nitric Acid	<2			
94136-F-20240927-01	240-212122-A-6	Plastic 60 mL - unpreserved				
94136-F-20240927-01	240-212122-B-6	Plastic 60 mL - unpreserved				

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
94136-F-20240927-01	240-212122-C-6	Plastic 500ml - unpreserved				
94136-F-20240927-01	240-212122-D-6	Plastic 500ml - with Nitric Acid	<2			
94136-F-20240927-01	240-212122-E-6	Plastic 1 liter - Nitric Acid	<2			
94136-F-20240927-01	240-212122-F-6	Plastic 1 liter - Nitric Acid	<2			
94137-F-20240927-01	240-212122-A-7	Plastic 60 mL - unpreserved				
94137-F-20240927-01	240-212122-B-7	Plastic 60 mL - unpreserved				
94137-F-20240927-01	240-212122-C-7	Plastic 500ml - unpreserved				
94137-F-20240927-01	240-212122-D-7	Plastic 500ml - with Nitric Acid	<2			
94137-F-20240927-01	240-212122-E-7	Plastic 1 liter - Nitric Acid	<2			
94137-F-20240927-01	240-212122-F-7	Plastic 1 liter - Nitric Acid	<2			

Due Date Requested:

TAT Requested (days):

Compliance Project: Δ Yes Δ No

PO #: 2935505

WO #:

Project #: 24019633

SSOW#:

240-111832-39818.1

Page: Page 1 of 8

Job #:

State of Origin:

Analysis Requested

| Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 6010B, 6020, 7470A | 2540C_Calcd - TDS | 9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC | 300.0_28D - Chloride, Fluoride & Sulfate | 2320B - (MOD) Alkalinity | | |

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191464.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-212122-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/31/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-12-F-20240926-01 (240-212122-1)	9/26/24	13:12 Eastern	G	Water			X	X	X	2	
2022-13-F-20240926-01 (240-212122-2)	9/26/24	14:20 Eastern	G	Water			X	X	X	2	
FIELDBLANK-001-F-20240926-01 (240-212122-3)	9/26/24	15:00 Eastern	G	Water			X	X	X	2	
EB-001-F-20240926-01 (240-212122-4)	9/26/24	15:10 Eastern	G	Water			X	X	X	2	
2003-F-20240927-01 (240-212122-5)	9/27/24	10:29 Eastern	G	Water			X	X	X	2	
94136-F-20240927-01 (240-212122-6)	9/27/24	13:54 Eastern	G	Water			X	X	X	2	
94137-F-20240927-01 (240-212122-7)	9/27/24	12:34 Eastern	G	Water			X	X	X	2	

Preservation Codes:
Other:

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
JESSICA RIGDON	10-1-24 1500	EETNC	Sierra Worthington	10/2 0850	ETA-SL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-212122-1

Login Number: 212122
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/02/24 01:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 11/7/2024 1:24:07 PM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-212123-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/7/2024 1:24:07 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-212123-1 — Eurofins Cleveland

Job Narrative
240-212123-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/1/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.3°C and 3.0°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 prep batch 160-685414
Insufficient sample volume was available to perform a sample duplicate for the following samples: 96154R-F-20240926-01 (240-212123-1) and DUP-003-F-20240926-01 (240-212123-2). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method 9320_Ra228: Radium 228 batch 685414
The LCS recovered at (133%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (69-145%) per method requirements. The LCS passes, no further action is required (LCS 160-685414/2-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-212123-1	96154R-F-20240926-01	Water	09/26/24 11:02	10/01/24 08:00
240-212123-2	DUP-003-F-20240926-01	Water	09/26/24 00:00	10/01/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Client Sample ID: 96154R-F-20240926-01 — Lab Sample ID: 240-212123-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	400		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.62	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	6.4		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	110		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.088	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	3800		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.7	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.33	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	54		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	890	J	1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3800		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	550000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	450		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	160		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	480		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	3.9		0.50	0.24	mg/L	10		300.0	Total/NA
Sulfate	44		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	1200		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-003-F-20240926-01 — Lab Sample ID: 240-212123-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	390		100	57	ug/L	1		6010D	Total Recoverable
Antimony	0.58	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	6.3		5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	100		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.090	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	3700		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.5	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.26	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	52		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	840	J	1000	61	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: DUP-003-F-20240926-01 (Continued)

Lab Sample ID: 240-212123-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	100		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	3700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	530000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	450		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Carbonate Alkalinity as CaCO3	110		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	480		10	1.3	mg/L	10		300.0	Total/NA
Fluoride	4.2		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	43		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	1300		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96154R-F-20240926-01

Date Collected: 09/26/24 11:02
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212123-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	400		100	57	ug/L		10/01/24 14:00	10/03/24 03:17	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.62	J	2.0	0.57	ug/L		10/01/24 14:00	10/02/24 23:07	1
Arsenic	6.4		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 23:07	1
Barium	110		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 23:07	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 23:07	1
Cadmium	0.088	J	1.0	0.077	ug/L		10/01/24 14:00	10/02/24 23:07	1
Calcium	3800		1000	250	ug/L		10/01/24 14:00	10/02/24 23:07	1
Chromium	1.7	J	5.0	1.2	ug/L		10/01/24 14:00	10/02/24 23:07	1
Cobalt	0.33	J	1.0	0.086	ug/L		10/01/24 14:00	10/02/24 23:07	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 23:07	1
Lithium	54		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 23:07	1
Magnesium	890	J	1000	61	ug/L		10/01/24 14:00	10/02/24 23:07	1
Molybdenum	110		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 23:07	1
Potassium	3800		1000	220	ug/L		10/01/24 14:00	10/02/24 23:07	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 23:07	1
Sodium	550000		1000	880	ug/L		10/01/24 14:00	10/02/24 23:07	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 23:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	450		5.0	2.6	mg/L			10/03/24 16:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	290		5.0	2.6	mg/L			10/03/24 16:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	160		5.0	2.6	mg/L			10/03/24 16:52	1
Chloride (EPA 300.0)	480		10	1.3	mg/L			10/10/24 09:41	10
Fluoride (EPA 300.0)	3.9		0.50	0.24	mg/L			10/10/24 09:41	10
Sulfate (EPA 300.0)	44		10	3.5	mg/L			10/10/24 09:41	10
Total Dissolved Solids (SM 2540C)	1200		20	16	mg/L			10/02/24 08:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.228	U	0.217	0.218	1.00	0.338	pCi/L	10/03/24 08:53	10/25/24 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.8*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:34*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.36		0.519	0.533	1.00	0.646	pCi/L	10/28/24 09:10	11/06/24 12:15	1

Client Sample ID: 96154R-F-20240926-01
Date Collected: 09/26/24 11:02
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212123-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.8*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*
Y Carrier	*81.1*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.58**		0.563	0.576	5.00	0.646	pCi/L		11/07/24 11:52	1

Client Sample ID: DUP-003-F-20240926-01
Date Collected: 09/26/24 00:00
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212123-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	390		100	57	ug/L		10/01/24 14:00	10/03/24 03:21	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.58	J	2.0	0.57	ug/L		10/01/24 14:00	10/02/24 23:09	1
Arsenic	6.3		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 23:09	1
Barium	100		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 23:09	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 23:09	1
Cadmium	0.090	J	1.0	0.077	ug/L		10/01/24 14:00	10/02/24 23:09	1
Calcium	3700		1000	250	ug/L		10/01/24 14:00	10/02/24 23:09	1
Chromium	1.5	J	5.0	1.2	ug/L		10/01/24 14:00	10/02/24 23:09	1
Cobalt	0.26	J	1.0	0.086	ug/L		10/01/24 14:00	10/02/24 23:09	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 23:09	1
Lithium	52		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 23:09	1
Magnesium	840	J	1000	61	ug/L		10/01/24 14:00	10/02/24 23:09	1
Molybdenum	100		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 23:09	1
Potassium	3700		1000	220	ug/L		10/01/24 14:00	10/02/24 23:09	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 23:09	1
Sodium	530000		1000	880	ug/L		10/01/24 14:00	10/02/24 23:09	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 23:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	450		5.0	2.6	mg/L			10/03/24 16:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	340		5.0	2.6	mg/L			10/03/24 16:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	110		5.0	2.6	mg/L			10/03/24 16:57	1
Chloride (EPA 300.0)	480		10	1.3	mg/L			10/10/24 10:20	10
Fluoride (EPA 300.0)	4.2		0.050	0.024	mg/L			10/10/24 10:00	1
Sulfate (EPA 300.0)	43		1.0	0.35	mg/L			10/10/24 10:00	1
Total Dissolved Solids (SM 2540C)	1300		20	16	mg/L			10/02/24 08:41	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.355		0.224	0.227	1.00	0.306	pCi/L	10/03/24 08:53	10/25/24 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.7*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:34*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.308	U	0.369	0.370	1.00	0.609	pCi/L	10/28/24 09:10	11/06/24 12:15	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Client Sample ID: DUP-003-F-20240926-01
Date Collected: 09/26/24 00:00
Date Received: 10/01/24 08:00

Lab Sample ID: 240-212123-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.0*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*
Y Carrier	*77.4*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:15*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.664**		0.432	0.434	5.00	0.609	pCi/L		11/07/24 11:52	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-212123-1	96154R-F-20240926-01	75.8
240-212123-2	DUP-003-F-20240926-01	82.7
LCS 160-682001/2-A	Lab Control Sample	73.5
MB 160-682001/1-A	Method Blank	83.0

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-212123-1	96154R-F-20240926-01	74.8	81.1
240-212123-2	DUP-003-F-20240926-01	87.0	77.4
LCS 160-685414/2-A	Lab Control Sample	85.6	83.0
LCSD 160-685414/3-A	Lab Control Sample Dup	94.1	89.3
MB 160-685414/1-A	Method Blank	86.1	83.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-629092/1-A
Matrix: Water
Analysis Batch: 629324

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/01/24 14:00	10/03/24 02:00	1

Lab Sample ID: LCS 240-629092/2-A
Matrix: Water
Analysis Batch: 629324

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1010		ug/L		101	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-629092/1-A
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/01/24 14:00	10/02/24 22:12	1
Arsenic	ND		5.0	0.75	ug/L		10/01/24 14:00	10/02/24 22:12	1
Barium	ND		5.0	0.77	ug/L		10/01/24 14:00	10/02/24 22:12	1
Beryllium	ND		1.0	0.27	ug/L		10/01/24 14:00	10/02/24 22:12	1
Cadmium	ND		1.0	0.077	ug/L		10/01/24 14:00	10/02/24 22:12	1
Calcium	ND		1000	250	ug/L		10/01/24 14:00	10/02/24 22:12	1
Chromium	ND		5.0	1.2	ug/L		10/01/24 14:00	10/02/24 22:12	1
Cobalt	ND		1.0	0.086	ug/L		10/01/24 14:00	10/02/24 22:12	1
Lead	ND		1.0	0.45	ug/L		10/01/24 14:00	10/02/24 22:12	1
Lithium	ND		8.0	3.4	ug/L		10/01/24 14:00	10/02/24 22:12	1
Magnesium	ND		1000	61	ug/L		10/01/24 14:00	10/02/24 22:12	1
Molybdenum	ND		5.0	1.1	ug/L		10/01/24 14:00	10/02/24 22:12	1
Potassium	ND		1000	220	ug/L		10/01/24 14:00	10/02/24 22:12	1
Selenium	ND		5.0	0.89	ug/L		10/01/24 14:00	10/02/24 22:12	1
Sodium	ND		1000	880	ug/L		10/01/24 14:00	10/02/24 22:12	1
Thallium	ND		1.0	0.51	ug/L		10/01/24 14:00	10/02/24 22:12	1

Lab Sample ID: LCS 240-629092/3-A
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	104		ug/L		104	80 - 120
Arsenic	1000	943		ug/L		94	80 - 120
Barium	1000	1030		ug/L		103	80 - 120
Beryllium	500	513		ug/L		103	80 - 120
Cadmium	500	507		ug/L		101	80 - 120
Calcium	25000	25600		ug/L		103	80 - 120
Chromium	500	504		ug/L		101	80 - 120
Cobalt	500	467		ug/L		93	80 - 120
Lead	500	485		ug/L		97	80 - 120
Lithium	500	511		ug/L		102	80 - 120
Magnesium	25000	26200		ug/L		105	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-629092/3-A
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Molybdenum	500	498		ug/L		100	80 - 120
Potassium	25000	26400		ug/L		105	80 - 120
Selenium	1000	1040		ug/L		104	80 - 120
Sodium	25000	26500		ug/L		106	80 - 120
Thallium	1000	1200		ug/L		120	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-629095/1-A
Matrix: Water
Analysis Batch: 629310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/01/24 14:00	10/02/24 14:00	1

Lab Sample ID: LCS 240-629095/2-A
Matrix: Water
Analysis Batch: 629310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.00		ug/L		100	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-629587/28
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/03/24 17:28	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 17:28	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 17:28	1

Lab Sample ID: MB 240-629587/4
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/03/24 15:17	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 15:17	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 15:17	1

Lab Sample ID: MB 240-629587/52
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/03/24 19:36	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 19:36	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/03/24 19:36	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-629587/27
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	276		mg/L		99	86 - 123

Lab Sample ID: LCS 240-629587/3
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		97	86 - 123

Lab Sample ID: LCS 240-629587/51
Matrix: Water
Analysis Batch: 629587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	273		mg/L		98	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630106/3
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/09/24 20:12	1
Fluoride	ND		0.050	0.024	mg/L			10/09/24 20:12	1
Sulfate	ND		1.0	0.35	mg/L			10/09/24 20:12	1

Lab Sample ID: LCS 240-630106/4
Matrix: Water
Analysis Batch: 630106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.7		mg/L		101	90 - 110
Fluoride	2.50	2.65		mg/L		106	90 - 110
Sulfate	50.0	52.6		mg/L		105	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-629197/1
Matrix: Water
Analysis Batch: 629197

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/02/24 08:41	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-629197/2
Matrix: Water
Analysis Batch: 629197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	680		mg/L		94	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-682001/1-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682001

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1288	U	0.161	0.161	1.00	0.266	pCi/L	10/03/24 08:53	10/25/24 07:26	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.0*		*30 - 110*	*10/03/24 08:53*	*10/25/24 07:26*	*1*

Lab Sample ID: LCS 160-682001/2-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682001

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	10.87		1.39	1.00	0.410	pCi/L	114	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*73.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-685414/1-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685414

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4201	U	0.357	0.359	1.00	0.558	pCi/L	10/28/24 09:10	11/06/24 12:10	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:10*	*1*
Y Carrier	*83.4*		*30 - 110*	*10/28/24 09:10*	*11/06/24 12:10*	*1*

Lab Sample ID: LCS 160-685414/2-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685414

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.37	11.14		1.50	1.00	0.645	pCi/L	133	75 - 125

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-685414/2-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685414

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.6		30 - 110
Y Carrier	83.0		30 - 110

Lab Sample ID: LCSD 160-685414/3-A
Matrix: Water
Analysis Batch: 687133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 685414

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228			8.37	9.372		1.25	1.00	0.486	pCi/L	112	75 - 125	0.64	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	94.1		30 - 110
Y Carrier	89.3		30 - 110

Metals

Prep Batch: 629092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total Recoverable	Water	3005A	
240-212123-2	DUP-003-F-20240926-01	Total Recoverable	Water	3005A	
MB 240-629092/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-629092/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-629092/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 629095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	7470A	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	7470A	
MB 240-629095/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-629095/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 629310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	7470A	629095
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	7470A	629095
MB 240-629095/1-A	Method Blank	Total/NA	Water	7470A	629095
LCS 240-629095/2-A	Lab Control Sample	Total/NA	Water	7470A	629095

Analysis Batch: 629324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total Recoverable	Water	6010D	629092
240-212123-2	DUP-003-F-20240926-01	Total Recoverable	Water	6010D	629092
MB 240-629092/1-A	Method Blank	Total Recoverable	Water	6010D	629092
LCS 240-629092/2-A	Lab Control Sample	Total Recoverable	Water	6010D	629092

Analysis Batch: 629347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total Recoverable	Water	6020B	629092
240-212123-2	DUP-003-F-20240926-01	Total Recoverable	Water	6020B	629092
MB 240-629092/1-A	Method Blank	Total Recoverable	Water	6020B	629092
LCS 240-629092/3-A	Lab Control Sample	Total Recoverable	Water	6020B	629092

General Chemistry

Analysis Batch: 629197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	SM 2540C	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	SM 2540C	
MB 240-629197/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-629197/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 629587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	2320B-1997	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	2320B-1997	
MB 240-629587/28	Method Blank	Total/NA	Water	2320B-1997	
MB 240-629587/4	Method Blank	Total/NA	Water	2320B-1997	
MB 240-629587/52	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-629587/27	Lab Control Sample	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 629587 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-629587/3	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-629587/51	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 630106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	300.0	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	300.0	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	300.0	
MB 240-630106/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630106/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 682001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	PrecSep-21	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	PrecSep-21	
MB 160-682001/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-682001/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 685414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212123-1	96154R-F-20240926-01	Total/NA	Water	PrecSep_0	
240-212123-2	DUP-003-F-20240926-01	Total/NA	Water	PrecSep_0	
MB 160-685414/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-685414/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-685414/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212123-1

Client Sample ID: 96154R-F-20240926-01

Lab Sample ID: 240-212123-1

Date Collected: 09/26/24 11:02

Matrix: Water

Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 03:17
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 23:07
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:34
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:52
Total/NA	Analysis	300.0		10	630106	JMR	EET CLE	10/10/24 09:41
Total/NA	Analysis	SM 2540C		1	629197	TAV2	EET CLE	10/02/24 08:41
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685116	FLC	EET SL	10/25/24 07:34
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Client Sample ID: DUP-003-F-20240926-01

Lab Sample ID: 240-212123-2

Date Collected: 09/26/24 00:00

Matrix: Water

Date Received: 10/01/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6010D		1	629324	RKT	EET CLE	10/03/24 03:21
Total Recoverable	Prep	3005A			629092	BN	EET CLE	10/01/24 14:00
Total Recoverable	Analysis	6020B		1	629347	AJC	EET CLE	10/02/24 23:09
Total/NA	Prep	7470A			629095	BN	EET CLE	10/01/24 14:00
Total/NA	Analysis	7470A		1	629310	GK	EET CLE	10/02/24 14:35
Total/NA	Analysis	2320B-1997		1	629587	GZF4	EET CLE	10/03/24 16:57
Total/NA	Analysis	300.0		1	630106	JMR	EET CLE	10/10/24 10:00
Total/NA	Analysis	300.0		10	630106	JMR	EET CLE	10/10/24 10:20
Total/NA	Analysis	SM 2540C		1	629197	TAV2	EET CLE	10/02/24 08:41
Total/NA	Prep	PrecSep-21			682001	BCE	EET SL	10/03/24 08:53
Total/NA	Analysis	9315		1	685116	FLC	EET SL	10/25/24 07:34
Total/NA	Prep	PrecSep_0			685414	BCE	EET SL	10/28/24 09:10
Total/NA	Analysis	9320		1	687133	SWS	EET SL	11/06/24 12:15
Total/NA	Analysis	Ra226_Ra228		1	687361	CAH	EET SL	11/07/24 11:52

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212123-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212123-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

eurofins Environment Testing

Client Information	Sampler: Bobby Cato	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
96154R-F-20240926-01	9-26-24	1102	G	Water	N		1	1	2	1	1		
DUP-003-F-20240926-01	9-26-24	—	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-212123 COC

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Bobby Cato	9-30-24/0945	FEMA	Tom Mutz	09/30/24 1125	Eurofins
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[illegible]	09/30/24 1745	Eurofins	[illegible]	10/1/24 8:00	Euro
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**_____
Barberton Facility

Client Lightstone Generation Site Name_____ Cooler unpacked by TF

Cooler Received on 10/11/24 Opened on 10/11/24

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other_____

Receipt After-hours Drop-off Date/Time_____ Storage Location_____

Eurofins Cooler # EC Foam Box Client Cooler Box Other_____

Packing material used. Bubble Wrap Foam Plastic Bag None Other_____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # _____ (CF_____°C) Observed Cooler Temp _____°C Corrected Cooler Temp _____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC447997
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 17	3.1	3.0	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	2.4	2.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

10/1/2024

Login Container Summary Report

240-212123

11/7/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
96154R-F-20240926-01	240-212123-A-1	Plastic 60 mL - unpreserved				
96154R-F-20240926-01	240-212123-B-1	Plastic 60 mL - unpreserved				
96154R-F-20240926-01	240-212123-C-1	Plastic 500ml - unpreserved				
96154R-F-20240926-01	240-212123-D-1	Plastic 500ml - with Nitric Acid	<2			
96154R-F-20240926-01	240-212123-G-1	Plastic 1 liter - Nitric Acid	<2			
96154R-F-20240926-01	240-212123-H-1	Plastic 1 liter - Nitric Acid	<2			
DUP-003-F-20240926-01	240-212123-A-2	Plastic 60 mL - unpreserved				
DUP-003-F-20240926-01	240-212123-B-2	Plastic 60 mL - unpreserved				
DUP-003-F-20240926-01	240-212123-C-2	Plastic 500ml - unpreserved				
DUP-003-F-20240926-01	240-212123-D-2	Plastic 500ml - with Nitric Acid	<2			
DUP-003-F-20240926-01	240-212123-E-2	Plastic 1 liter - Nitric Acid	<2			
DUP-003-F-20240926-01	240-212123-F-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191464.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-212123-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/31/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
96154R-F-20240926-01 (240-212123-1)	9/26/24	11:02 Eastern	G	Water			X	X	X	2	
DUP-003-F-20240926-01 (240-212123-2)	9/26/24	Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
JESSICA RIGDON	10-1-24 1500	ETNC	Sierra Worthington	10/2 0850	ETA-STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

11/7/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-212123-1

Login Number: 212123
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/02/24 01:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 11/4/2024 2:10:14 PM

JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-212423-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/4/2024 2:10:14 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-212423-1 — Eurofins Cleveland

Job Narrative
240-212423-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/4/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6°C and 3.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212423-1
Project/Site: Gavin CCR

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-212423-1	93100-F-20241002-01	Water	10/02/24 10:45	10/04/24 08:00
240-212423-2	DUP-004-F-20241002-01	Water	10/02/24 00:00	10/04/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Client Sample ID: 93100-F-20241002-01 — Lab Sample ID: 240-212423-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	530		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	17000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	5.0		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	7.0		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	42		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	5400		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2200		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1300000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	280		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2200		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.4		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	18		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3600		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-004-F-20241002-01 — Lab Sample ID: 240-212423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	450		100	57	ug/L	1		6010D	Total Recoverable
Arsenic	1.6	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	540		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	17000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	4.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	7.1		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	42		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	5500		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	110		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2300		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	0.91	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	1400000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cleveland

Client Sample ID: DUP-004-F-20241002-01 (Continued)

Lab Sample ID: 240-212423-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	260		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	2200		20	2.6	mg/L	20		300.0	Total/NA
Fluoride	2.4		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	18		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	9900		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 93100-F-20241002-01
Date Collected: 10/02/24 10:45
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212423-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	450		100	57	ug/L		10/07/24 14:00	10/09/24 23:23	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/07/24 14:00	10/08/24 21:51	1
Arsenic	1.6	J	5.0	0.75	ug/L		10/07/24 14:00	10/08/24 21:51	1
Barium	530		5.0	0.77	ug/L		10/07/24 14:00	10/08/24 21:51	1
Beryllium	ND		1.0	0.27	ug/L		10/07/24 14:00	10/08/24 21:51	1
Cadmium	ND		1.0	0.077	ug/L		10/07/24 14:00	10/08/24 21:51	1
Calcium	17000		1000	250	ug/L		10/07/24 14:00	10/08/24 21:51	1
Chromium	5.0		5.0	1.2	ug/L		10/07/24 14:00	10/08/24 21:51	1
Cobalt	7.0		1.0	0.086	ug/L		10/07/24 14:00	10/08/24 21:51	1
Lead	ND		1.0	0.45	ug/L		10/07/24 14:00	10/08/24 21:51	1
Lithium	42		8.0	3.4	ug/L		10/07/24 14:00	10/09/24 12:52	1
Magnesium	5400		1000	61	ug/L		10/07/24 14:00	10/08/24 21:51	1
Molybdenum	110		5.0	1.1	ug/L		10/07/24 14:00	10/08/24 21:51	1
Potassium	2200		1000	220	ug/L		10/07/24 14:00	10/08/24 21:51	1
Selenium	ND		5.0	0.89	ug/L		10/07/24 14:00	10/08/24 21:51	1
Sodium	1300000		1000	880	ug/L		10/07/24 14:00	10/08/24 21:51	1
Thallium	ND		1.0	0.51	ug/L		10/07/24 14:00	10/09/24 12:52	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/07/24 14:00	10/08/24 09:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	280		5.0	2.6	mg/L			10/07/24 19:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	280		5.0	2.6	mg/L			10/07/24 19:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/07/24 19:45	1
Chloride (EPA 300.0)	2200		20	2.6	mg/L			10/10/24 18:14	20
Fluoride (EPA 300.0)	2.4		0.25	0.12	mg/L			10/10/24 17:54	5
Sulfate (EPA 300.0)	18		5.0	1.7	mg/L			10/10/24 17:54	5
Total Dissolved Solids (SM 2540C)	3600		50	39	mg/L			10/07/24 10:19	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.589		0.150	0.159	1.00	0.119	pCi/L	10/09/24 08:16	11/01/24 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*10/09/24 08:16*	*11/01/24 09:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.00		0.483	0.491	1.00	0.663	pCi/L	10/09/24 08:23	10/25/24 11:50	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Client Sample ID: 93100-F-20241002-01
Date Collected: 10/02/24 10:45
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212423-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*
Y Carrier	*72.1*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.59**		0.506	0.516	5.00	0.663	pCi/L		11/04/24 13:00	1

Client Sample ID: DUP-004-F-20241002-01
Date Collected: 10/02/24 00:00
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212423-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**450**		100	57	ug/L		10/07/24 14:00	10/09/24 23:27	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/07/24 14:00	10/08/24 21:56	1
Arsenic	**1.6**	**J**	5.0	0.75	ug/L		10/07/24 14:00	10/08/24 21:56	1
Barium	**540**		5.0	0.77	ug/L		10/07/24 14:00	10/08/24 21:56	1
Beryllium	ND		1.0	0.27	ug/L		10/07/24 14:00	10/08/24 21:56	1
Cadmium	ND		1.0	0.077	ug/L		10/07/24 14:00	10/08/24 21:56	1
Calcium	**17000**		1000	250	ug/L		10/07/24 14:00	10/08/24 21:56	1
Chromium	**4.9**	**J**	5.0	1.2	ug/L		10/07/24 14:00	10/08/24 21:56	1
Cobalt	**7.1**		1.0	0.086	ug/L		10/07/24 14:00	10/08/24 21:56	1
Lead	ND		1.0	0.45	ug/L		10/07/24 14:00	10/08/24 21:56	1
Lithium	**42**		8.0	3.4	ug/L		10/07/24 14:00	10/09/24 12:55	1
Magnesium	**5500**		1000	61	ug/L		10/07/24 14:00	10/08/24 21:56	1
Molybdenum	**110**		5.0	1.1	ug/L		10/07/24 14:00	10/08/24 21:56	1
Potassium	**2300**		1000	220	ug/L		10/07/24 14:00	10/08/24 21:56	1
Selenium	**0.91**	**J**	5.0	0.89	ug/L		10/07/24 14:00	10/08/24 21:56	1
Sodium	**1400000**		1000	880	ug/L		10/07/24 14:00	10/08/24 21:56	1
Thallium	ND		1.0	0.51	ug/L		10/07/24 14:00	10/09/24 12:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/07/24 14:00	10/08/24 09:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**260**		5.0	2.6	mg/L			10/07/24 19:59	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**260**		5.0	2.6	mg/L			10/07/24 19:59	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/07/24 19:59	1
Chloride (EPA 300.0)	**2200**		20	2.6	mg/L			10/10/24 18:53	20
Fluoride (EPA 300.0)	**2.4**		0.25	0.12	mg/L			10/10/24 18:33	5
Sulfate (EPA 300.0)	**18**		5.0	1.7	mg/L			10/10/24 18:33	5
Total Dissolved Solids (SM 2540C)	**9900**		50	39	mg/L			10/07/24 10:19	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.594**		0.150	0.159	1.00	0.123	pCi/L	10/09/24 08:16	11/01/24 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.7*		*30 - 110*	*10/09/24 08:16*	*11/01/24 09:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.536	U	0.391	0.394	1.00	0.594	pCi/L	10/09/24 08:23	10/25/24 11:50	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Client Sample ID: DUP-004-F-20241002-01
Date Collected: 10/02/24 00:00
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212423-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.7*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*
Y Carrier	*73.6*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.13**		0.419	0.425	5.00	0.594	pCi/L		11/04/24 13:00	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
240-212423-1	93100-F-20241002-01	86.1							
240-212423-2	DUP-004-F-20241002-01	90.7							
LCS 160-682845/2-A	Lab Control Sample	86.3							
MB 160-682845/1-A	Method Blank	84.8							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
240-212423-1	93100-F-20241002-01	86.1	72.1						
240-212423-2	DUP-004-F-20241002-01	90.7	73.6						
LCS 160-682846/2-A	Lab Control Sample	86.3	76.3						
MB 160-682846/1-A	Method Blank	84.8	89.3						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-629743/1-A
Matrix: Water
Analysis Batch: 630095

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/07/24 14:00	10/09/24 22:28	1

Lab Sample ID: LCS 240-629743/2-A
Matrix: Water
Analysis Batch: 630095

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	989		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-629743/1-A
Matrix: Water
Analysis Batch: 630026

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/07/24 14:00	10/08/24 20:38	1
Arsenic	ND		5.0	0.75	ug/L		10/07/24 14:00	10/08/24 20:38	1
Barium	ND		5.0	0.77	ug/L		10/07/24 14:00	10/08/24 20:38	1
Beryllium	ND		1.0	0.27	ug/L		10/07/24 14:00	10/08/24 20:38	1
Cadmium	ND		1.0	0.077	ug/L		10/07/24 14:00	10/08/24 20:38	1
Calcium	ND		1000	250	ug/L		10/07/24 14:00	10/08/24 20:38	1
Chromium	ND		5.0	1.2	ug/L		10/07/24 14:00	10/08/24 20:38	1
Cobalt	ND		1.0	0.086	ug/L		10/07/24 14:00	10/08/24 20:38	1
Lead	ND		1.0	0.45	ug/L		10/07/24 14:00	10/08/24 20:38	1
Magnesium	ND		1000	61	ug/L		10/07/24 14:00	10/08/24 20:38	1
Molybdenum	ND		5.0	1.1	ug/L		10/07/24 14:00	10/08/24 20:38	1
Potassium	ND		1000	220	ug/L		10/07/24 14:00	10/08/24 20:38	1
Selenium	ND		5.0	0.89	ug/L		10/07/24 14:00	10/08/24 20:38	1
Sodium	ND		1000	880	ug/L		10/07/24 14:00	10/08/24 20:38	1

Lab Sample ID: MB 240-629743/1-A
Matrix: Water
Analysis Batch: 630125

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		8.0	3.4	ug/L		10/07/24 14:00	10/09/24 12:14	1
Thallium	ND		1.0	0.51	ug/L		10/07/24 14:00	10/09/24 12:14	1

Lab Sample ID: LCS 240-629743/3-A
Matrix: Water
Analysis Batch: 630026

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	994		ug/L		99	80 - 120
Barium	1000	1080		ug/L		108	80 - 120
Beryllium	500	521		ug/L		104	80 - 120
Cadmium	500	484		ug/L		97	80 - 120
Calcium	25000	24900		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-629743/3-A
Matrix: Water
Analysis Batch: 630026

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	500	522		ug/L		104	80 - 120
Cobalt	500	543		ug/L		109	80 - 120
Lead	500	547		ug/L		109	80 - 120
Magnesium	25000	24900		ug/L		100	80 - 120
Molybdenum	500	539		ug/L		108	80 - 120
Potassium	25000	25200		ug/L		101	80 - 120
Selenium	1000	976		ug/L		98	80 - 120
Sodium	25000	24900		ug/L		100	80 - 120

Lab Sample ID: LCS 240-629743/3-A
Matrix: Water
Analysis Batch: 630125

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	500	502		ug/L		100	80 - 120
Thallium	1000	936		ug/L		94	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-629748/1-A
Matrix: Water
Analysis Batch: 629951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629748

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/07/24 14:00	10/08/24 09:14	1

Lab Sample ID: LCS 240-629748/2-A
Matrix: Water
Analysis Batch: 629951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.87		ug/L		97	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-629930/28
Matrix: Water
Analysis Batch: 629930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/07/24 19:13	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/07/24 19:13	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/07/24 19:13	1

Lab Sample ID: 240-212423-2 DU
Matrix: Water
Analysis Batch: 629930

Client Sample ID: DUP-004-F-20241002-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	260		276		mg/L		7	20

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: 240-212423-2 DU
Matrix: Water
Analysis Batch: 629930

Client Sample ID: DUP-004-F-20241002-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	260		276		mg/L		7	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630113/3
Matrix: Water
Analysis Batch: 630113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/10/24 13:57	1
Fluoride	ND		0.050	0.024	mg/L			10/10/24 13:57	1
Sulfate	ND		1.0	0.35	mg/L			10/10/24 13:57	1

Lab Sample ID: LCS 240-630113/4
Matrix: Water
Analysis Batch: 630113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.0		mg/L		102	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-629757/1
Matrix: Water
Analysis Batch: 629757

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/07/24 10:19	1

Lab Sample ID: LCS 240-629757/2
Matrix: Water
Analysis Batch: 629757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	699		mg/L		97	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-682845/1-A
Matrix: Water
Analysis Batch: 686242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682845

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04956	U	0.0718	0.0719	1.00	0.122	pCi/L	10/09/24 08:16	11/01/24 07:48	1

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: MB 160-682845/1-A
Matrix: Water
Analysis Batch: 686242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682845

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	10/09/24 08:16	11/01/24 07:48	1

Lab Sample ID: LCS 160-682845/2-A
Matrix: Water
Analysis Batch: 686242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682845

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.438		1.04	1.00	0.154	pCi/L	99	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.3		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-682846/1-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682846

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8104		0.398	0.405	1.00	0.550	pCi/L	10/09/24 08:23	10/25/24 11:52	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	10/09/24 08:23	10/25/24 11:52	1
Y Carrier	89.3		30 - 110	10/09/24 08:23	10/25/24 11:52	1

Lab Sample ID: LCS 160-682846/2-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682846

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.40	9.467		1.35	1.00	0.591	pCi/L	113	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.3		30 - 110
Y Carrier	76.3		30 - 110

Metals

Prep Batch: 629743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total Recoverable	Water	3005A	
240-212423-2	DUP-004-F-20241002-01	Total Recoverable	Water	3005A	
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-629743/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-629743/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 629748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	7470A	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	7470A	
MB 240-629748/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-629748/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 629951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	7470A	629748
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	7470A	629748
MB 240-629748/1-A	Method Blank	Total/NA	Water	7470A	629748
LCS 240-629748/2-A	Lab Control Sample	Total/NA	Water	7470A	629748

Analysis Batch: 630026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total Recoverable	Water	6020B	629743
240-212423-2	DUP-004-F-20241002-01	Total Recoverable	Water	6020B	629743
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	6020B	629743
LCS 240-629743/3-A	Lab Control Sample	Total Recoverable	Water	6020B	629743

Analysis Batch: 630095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total Recoverable	Water	6010D	629743
240-212423-2	DUP-004-F-20241002-01	Total Recoverable	Water	6010D	629743
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	6010D	629743
LCS 240-629743/2-A	Lab Control Sample	Total Recoverable	Water	6010D	629743

Analysis Batch: 630125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total Recoverable	Water	6020B	629743
240-212423-2	DUP-004-F-20241002-01	Total Recoverable	Water	6020B	629743
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	6020B	629743
LCS 240-629743/3-A	Lab Control Sample	Total Recoverable	Water	6020B	629743

General Chemistry

Analysis Batch: 629757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	SM 2540C	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	SM 2540C	
MB 240-629757/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-629757/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

General Chemistry

Analysis Batch: 629930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	2320B-1997	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	2320B-1997	
MB 240-629930/28	Method Blank	Total/NA	Water	2320B-1997	
240-212423-2 DU	DUP-004-F-20241002-01	Total/NA	Water	2320B-1997	

Analysis Batch: 630113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	300.0	
240-212423-1	93100-F-20241002-01	Total/NA	Water	300.0	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	300.0	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	300.0	
MB 240-630113/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630113/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 682845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	PrecSep-21	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	PrecSep-21	
MB 160-682845/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-682845/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 682846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212423-1	93100-F-20241002-01	Total/NA	Water	PrecSep_0	
240-212423-2	DUP-004-F-20241002-01	Total/NA	Water	PrecSep_0	
MB 160-682846/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-682846/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212423-1

Client Sample ID: 93100-F-20241002-01

Lab Sample ID: 240-212423-1

Date Collected: 10/02/24 10:45
Matrix: Water
Date Received: 10/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6010D		1	630095	RKT	EET CLE	10/09/24 23:23
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630026	DSH	EET CLE	10/08/24 21:51
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630125	AJC	EET CLE	10/09/24 12:52
Total/NA	Prep	7470A			629748	S4FJ	EET CLE	10/07/24 14:00
Total/NA	Analysis	7470A		1	629951	TQ6W	EET CLE	10/08/24 09:35
Total/NA	Analysis	2320B-1997		1	629930	GZF4	EET CLE	10/07/24 19:45
Total/NA	Analysis	300.0		5	630113	JMR	EET CLE	10/10/24 17:54
Total/NA	Analysis	300.0		20	630113	JMR	EET CLE	10/10/24 18:14
Total/NA	Analysis	SM 2540C		1	629757	AAP	EET CLE	10/07/24 10:19
Total/NA	Prep	PrecSep-21			682845	BCE	EET SL	10/09/24 08:16
Total/NA	Analysis	9315		1	686243	SWS	EET SL	11/01/24 09:33
Total/NA	Prep	PrecSep_0			682846	BCE	EET SL	10/09/24 08:23
Total/NA	Analysis	9320		1	685112	SWS	EET SL	10/25/24 11:50
Total/NA	Analysis	Ra226_Ra228		1	686788	FLC	EET SL	11/04/24 13:00

Client Sample ID: DUP-004-F-20241002-01

Lab Sample ID: 240-212423-2

Date Collected: 10/02/24 00:00
Matrix: Water
Date Received: 10/04/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6010D		1	630095	RKT	EET CLE	10/09/24 23:27
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630026	DSH	EET CLE	10/08/24 21:56
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630125	AJC	EET CLE	10/09/24 12:55
Total/NA	Prep	7470A			629748	S4FJ	EET CLE	10/07/24 14:00
Total/NA	Analysis	7470A		1	629951	TQ6W	EET CLE	10/08/24 09:36
Total/NA	Analysis	2320B-1997		1	629930	GZF4	EET CLE	10/07/24 19:59
Total/NA	Analysis	300.0		5	630113	JMR	EET CLE	10/10/24 18:33
Total/NA	Analysis	300.0		20	630113	JMR	EET CLE	10/10/24 18:53
Total/NA	Analysis	SM 2540C		1	629757	AAP	EET CLE	10/07/24 10:19
Total/NA	Prep	PrecSep-21			682845	BCE	EET SL	10/09/24 08:16
Total/NA	Analysis	9315		1	686243	SWS	EET SL	11/01/24 09:33
Total/NA	Prep	PrecSep_0			682846	BCE	EET SL	10/09/24 08:23
Total/NA	Analysis	9320		1	685112	SWS	EET SL	10/25/24 11:50
Total/NA	Analysis	Ra226_Ra228		1	686788	FLC	EET SL	11/04/24 13:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212423-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212423-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

Columbus 209

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Environment Testing

Client Information	Sampler: Bobby Custo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefol, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra228, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	D	N	N		
93100-F-20241002-01	10-2-24	1045	G	Water	N		1	1	2	1	1		
DUP-004-F-20241002-01	10-2-24	—	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-212423 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Custo	10-3-24/0915	Kemba	Ashley Deal	10-3-24 12:56	ETA
2	Ashley Deal	10-3-24 1700	ETA	J MOROSKO	10/4/24 0850	ETA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Lightstone Flavin Site Name

Cooler Received on 10/4/24 Opened on 10/4/24

Cooler unpacked by: JMOROSKO

FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 17 (CF 1.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

11/4/2024

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 11	2.5	2.6	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 13	3.0	3.1	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

10/4/2024

Login Container Summary Report

240-212423

11/4/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
93100-F-20241002-01	240-212423-A-1	Plastic 60 mL - unpreserved				
93100-F-20241002-01	240-212423-B-1	Plastic 60 mL - unpreserved				
93100-F-20241002-01	240-212423-C-1	Plastic 500ml - unpreserved				
93100-F-20241002-01	240-212423-D-1	Plastic 500ml - with Nitric Acid	<2			
93100-F-20241002-01	240-212423-G-1	Plastic 1 liter - Nitric Acid	<2			
93100-F-20241002-01	240-212423-H-1	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20241002-01	240-212423-A-2	Plastic 60 mL - unpreserved				
DUP-004-F-20241002-01	240-212423-B-2	Plastic 60 mL - unpreserved				
DUP-004-F-20241002-01	240-212423-C-2	Plastic 500ml - unpreserved				
DUP-004-F-20241002-01	240-212423-D-2	Plastic 500ml - with Nitric Acid	<2			
DUP-004-F-20241002-01	240-212423-E-2	Plastic 1 liter - Nitric Acid	<2			
DUP-004-F-20241002-01	240-212423-F-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191635.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-212423-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/3/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
93100-F-20241002-01 (240-212423-1)	10/2/24	10:45 Eastern	G	Water			X	X	X	2	
DUP-004-F-20241002-01 (240-212423-2)	10/2/24	Eastern	G	Water			X	X	X	2	

Preservation Codes:
-
Other:

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	MALISSA LOAR	10-1-24		Sierra Worthington	10/1 0830	ETA-STL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-212423-1

Login Number: 212423
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/07/24 12:24 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Gavin CCR

JOB NUMBER

240-212424-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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11/4/2024 2:10:53 PM

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-212424-1 — Eurofins Cleveland

Job Narrative
240-212424-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/4/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6°C and 3.7°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-212424-1	96153R-F-20240930-01	Water	09/30/24 12:59	10/04/24 08:00
240-212424-2	MW-20-F-20240930-01	Water	09/30/24 14:10	10/04/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Client Sample ID: 96153R-F-20240930-01 — Lab Sample ID: 240-212424-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	540		100	57	ug/L	1		6010D	Total Recoverable
Barium	23		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	130000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.3	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	0.15	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	44		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	22000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	3.9	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	300000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	17		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.74		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	820		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	1400		20	16	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-20-F-20240930-01 — Lab Sample ID: 240-212424-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	160		100	57	ug/L	1		6010D	Total Recoverable
Barium	16		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	450000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	210		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	180		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	94000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	4700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	20000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	160		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	160		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	1.7		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	1.4		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	1600		10	3.5	mg/L	10		300.0	Total/NA
Total Dissolved Solids	2300		20	16	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 96153R-F-20240930-01
Date Collected: 09/30/24 12:59
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212424-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**540**		100	57	ug/L		10/07/24 14:00	10/09/24 23:31	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/07/24 14:00	10/08/24 22:01	1
Arsenic	ND		5.0	0.75	ug/L		10/07/24 14:00	10/08/24 22:01	1
Barium	**23**		5.0	0.77	ug/L		10/07/24 14:00	10/08/24 22:01	1
Beryllium	ND		1.0	0.27	ug/L		10/07/24 14:00	10/08/24 22:01	1
Cadmium	ND		1.0	0.077	ug/L		10/07/24 14:00	10/08/24 22:01	1
Calcium	**130000**		1000	250	ug/L		10/07/24 14:00	10/08/24 22:01	1
Chromium	**1.3**	**J**	5.0	1.2	ug/L		10/07/24 14:00	10/08/24 22:01	1
Cobalt	**0.15**	**J**	1.0	0.086	ug/L		10/07/24 14:00	10/08/24 22:01	1
Lead	ND		1.0	0.45	ug/L		10/07/24 14:00	10/08/24 22:01	1
Lithium	**44**		8.0	3.4	ug/L		10/07/24 14:00	10/09/24 12:57	1
Magnesium	**22000**		1000	61	ug/L		10/07/24 14:00	10/08/24 22:01	1
Molybdenum	**3.9**	**J**	5.0	1.1	ug/L		10/07/24 14:00	10/08/24 22:01	1
Potassium	**5700**		1000	220	ug/L		10/07/24 14:00	10/08/24 22:01	1
Selenium	ND		5.0	0.89	ug/L		10/07/24 14:00	10/08/24 22:01	1
Sodium	**300000**		1000	880	ug/L		10/07/24 14:00	10/08/24 22:01	1
Thallium	ND		1.0	0.51	ug/L		10/07/24 14:00	10/09/24 12:57	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/07/24 14:00	10/08/24 09:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**220**		5.0	2.6	mg/L			10/07/24 20:05	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**220**		5.0	2.6	mg/L			10/07/24 20:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/07/24 20:05	1
Chloride (EPA 300.0)	**17**		1.0	0.13	mg/L			10/10/24 19:13	1
Fluoride (EPA 300.0)	**0.74**		0.050	0.024	mg/L			10/10/24 19:13	1
Sulfate (EPA 300.0)	**820**		5.0	1.7	mg/L			10/10/24 19:33	5
Total Dissolved Solids (SM 2540C)	**1400**		20	16	mg/L			10/07/24 10:19	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.131	U	0.0975	0.0982	1.00	0.143	pCi/L	10/09/24 08:16	11/01/24 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*10/09/24 08:16*	*11/01/24 09:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.457	U	0.369	0.371	1.00	0.571	pCi/L	10/09/24 08:23	10/25/24 11:50	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Client Sample ID: 96153R-F-20240930-01
Date Collected: 09/30/24 12:59
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212424-1
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*
Y Carrier	*78.1*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.589**		0.382	0.384	5.00	0.571	pCi/L		11/04/24 13:00	1

Client Sample ID: MW-20-F-20240930-01
Date Collected: 09/30/24 14:10
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212424-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**160**		100	57	ug/L		10/07/24 14:00	10/09/24 23:44	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/07/24 14:00	10/08/24 22:05	1
Arsenic	ND		5.0	0.75	ug/L		10/07/24 14:00	10/08/24 22:05	1
Barium	**16**		5.0	0.77	ug/L		10/07/24 14:00	10/08/24 22:05	1
Beryllium	ND		1.0	0.27	ug/L		10/07/24 14:00	10/08/24 22:05	1
Cadmium	ND		1.0	0.077	ug/L		10/07/24 14:00	10/08/24 22:05	1
Calcium	**450000**		1000	250	ug/L		10/07/24 14:00	10/08/24 22:05	1
Chromium	ND		5.0	1.2	ug/L		10/07/24 14:00	10/08/24 22:05	1
Cobalt	**210**		1.0	0.086	ug/L		10/07/24 14:00	10/08/24 22:05	1
Lead	ND		1.0	0.45	ug/L		10/07/24 14:00	10/08/24 22:05	1
Lithium	**180**		8.0	3.4	ug/L		10/07/24 14:00	10/09/24 13:00	1
Magnesium	**94000**		1000	61	ug/L		10/07/24 14:00	10/08/24 22:05	1
Molybdenum	ND		5.0	1.1	ug/L		10/07/24 14:00	10/08/24 22:05	1
Potassium	**4700**		1000	220	ug/L		10/07/24 14:00	10/08/24 22:05	1
Selenium	ND		5.0	0.89	ug/L		10/07/24 14:00	10/08/24 22:05	1
Sodium	**20000**		1000	880	ug/L		10/07/24 14:00	10/08/24 22:05	1
Thallium	ND		1.0	0.51	ug/L		10/07/24 14:00	10/09/24 13:00	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/07/24 14:00	10/08/24 09:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**160**		5.0	2.6	mg/L			10/07/24 20:10	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**160**		5.0	2.6	mg/L			10/07/24 20:10	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/07/24 20:10	1
Chloride (EPA 300.0)	**1.7**		1.0	0.13	mg/L			10/10/24 19:52	1
Fluoride (EPA 300.0)	**1.4**		0.050	0.024	mg/L			10/10/24 19:52	1
Sulfate (EPA 300.0)	**1600**		10	3.5	mg/L			10/10/24 20:12	10
Total Dissolved Solids (SM 2540C)	**2300**		20	16	mg/L			10/07/24 10:19	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.136**		0.0954	0.0961	1.00	0.134	pCi/L	10/09/24 08:16	11/01/24 09:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.7*		*30 - 110*	*10/09/24 08:16*	*11/01/24 09:33*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.347	U	0.420	0.421	1.00	0.694	pCi/L	10/09/24 08:23	10/25/24 11:50	1

Client Sample ID: MW-20-F-20240930-01
Date Collected: 09/30/24 14:10
Date Received: 10/04/24 08:00

Lab Sample ID: 240-212424-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.7*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*
Y Carrier	*72.5*		*30 - 110*	*10/09/24 08:23*	*10/25/24 11:50*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.483	U	0.431	0.432	5.00	0.694	pCi/L		11/04/24 13:00	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-212424-1	96153R-F-20240930-01	89.7
240-212424-2	MW-20-F-20240930-01	80.7
LCS 160-682845/2-A	Lab Control Sample	86.3
MB 160-682845/1-A	Method Blank	84.8

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-212424-1	96153R-F-20240930-01	89.7	78.1
240-212424-2	MW-20-F-20240930-01	80.7	72.5
LCS 160-682846/2-A	Lab Control Sample	86.3	76.3
MB 160-682846/1-A	Method Blank	84.8	89.3

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-629743/1-A
Matrix: Water
Analysis Batch: 630095

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/07/24 14:00	10/09/24 22:28	1

Lab Sample ID: LCS 240-629743/2-A
Matrix: Water
Analysis Batch: 630095

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	989		ug/L		99	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-629743/1-A
Matrix: Water
Analysis Batch: 630026

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/07/24 14:00	10/08/24 20:38	1
Arsenic	ND		5.0	0.75	ug/L		10/07/24 14:00	10/08/24 20:38	1
Barium	ND		5.0	0.77	ug/L		10/07/24 14:00	10/08/24 20:38	1
Beryllium	ND		1.0	0.27	ug/L		10/07/24 14:00	10/08/24 20:38	1
Cadmium	ND		1.0	0.077	ug/L		10/07/24 14:00	10/08/24 20:38	1
Calcium	ND		1000	250	ug/L		10/07/24 14:00	10/08/24 20:38	1
Chromium	ND		5.0	1.2	ug/L		10/07/24 14:00	10/08/24 20:38	1
Cobalt	ND		1.0	0.086	ug/L		10/07/24 14:00	10/08/24 20:38	1
Lead	ND		1.0	0.45	ug/L		10/07/24 14:00	10/08/24 20:38	1
Magnesium	ND		1000	61	ug/L		10/07/24 14:00	10/08/24 20:38	1
Molybdenum	ND		5.0	1.1	ug/L		10/07/24 14:00	10/08/24 20:38	1
Potassium	ND		1000	220	ug/L		10/07/24 14:00	10/08/24 20:38	1
Selenium	ND		5.0	0.89	ug/L		10/07/24 14:00	10/08/24 20:38	1
Sodium	ND		1000	880	ug/L		10/07/24 14:00	10/08/24 20:38	1

Lab Sample ID: MB 240-629743/1-A
Matrix: Water
Analysis Batch: 630125

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	ND		8.0	3.4	ug/L		10/07/24 14:00	10/09/24 12:14	1
Thallium	ND		1.0	0.51	ug/L		10/07/24 14:00	10/09/24 12:14	1

Lab Sample ID: LCS 240-629743/3-A
Matrix: Water
Analysis Batch: 630026

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	80 - 120
Arsenic	1000	994		ug/L		99	80 - 120
Barium	1000	1080		ug/L		108	80 - 120
Beryllium	500	521		ug/L		104	80 - 120
Cadmium	500	484		ug/L		97	80 - 120
Calcium	25000	24900		ug/L		100	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-629743/3-A
Matrix: Water
Analysis Batch: 630026

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	500	522		ug/L		104	80 - 120
Cobalt	500	543		ug/L		109	80 - 120
Lead	500	547		ug/L		109	80 - 120
Magnesium	25000	24900		ug/L		100	80 - 120
Molybdenum	500	539		ug/L		108	80 - 120
Potassium	25000	25200		ug/L		101	80 - 120
Selenium	1000	976		ug/L		98	80 - 120
Sodium	25000	24900		ug/L		100	80 - 120

Lab Sample ID: LCS 240-629743/3-A
Matrix: Water
Analysis Batch: 630125

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 629743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	500	502		ug/L		100	80 - 120
Thallium	1000	936		ug/L		94	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-629748/1-A
Matrix: Water
Analysis Batch: 629951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629748

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/07/24 14:00	10/08/24 09:14	1

Lab Sample ID: LCS 240-629748/2-A
Matrix: Water
Analysis Batch: 629951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.87		ug/L		97	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-629930/28
Matrix: Water
Analysis Batch: 629930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/07/24 19:13	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/07/24 19:13	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/07/24 19:13	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-630113/3
Matrix: Water
Analysis Batch: 630113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/10/24 13:57	1
Fluoride	ND		0.050	0.024	mg/L			10/10/24 13:57	1
Sulfate	ND		1.0	0.35	mg/L			10/10/24 13:57	1

Lab Sample ID: LCS 240-630113/4
Matrix: Water
Analysis Batch: 630113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	51.0		mg/L		102	90 - 110
Fluoride	2.50	2.66		mg/L		106	90 - 110
Sulfate	50.0	52.8		mg/L		106	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-629757/1
Matrix: Water
Analysis Batch: 629757

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/07/24 10:19	1

Lab Sample ID: LCS 240-629757/2
Matrix: Water
Analysis Batch: 629757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	721	699		mg/L		97	80 - 120

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-682845/1-A
Matrix: Water
Analysis Batch: 686242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682845

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04956	U	0.0718	0.0719	1.00	0.122	pCi/L	10/09/24 08:16	11/01/24 07:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/09/24 08:16*	*11/01/24 07:48*	*1*

Lab Sample ID: LCS 160-682845/2-A
Matrix: Water
Analysis Batch: 686242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682845

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	9.438		1.04	1.00	0.154	pCi/L	99	75 - 125

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-682845/2-A
Matrix: Water
Analysis Batch: 686242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682845

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.3		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-682846/1-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682846

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8104		0.398	0.405	1.00	0.550	pCi/L	10/09/24 08:23	10/25/24 11:52	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	10/09/24 08:23	10/25/24 11:52	1
Y Carrier	89.3		30 - 110	10/09/24 08:23	10/25/24 11:52	1

Lab Sample ID: LCS 160-682846/2-A
Matrix: Water
Analysis Batch: 685112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682846

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.40	9.467		1.35	1.00	0.591	pCi/L	113	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.3		30 - 110
Y Carrier	76.3		30 - 110

Metals

Prep Batch: 629743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total Recoverable	Water	3005A	
240-212424-2	MW-20-F-20240930-01	Total Recoverable	Water	3005A	
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-629743/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-629743/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 629748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	7470A	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	7470A	
MB 240-629748/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-629748/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 629951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	7470A	629748
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	7470A	629748
MB 240-629748/1-A	Method Blank	Total/NA	Water	7470A	629748
LCS 240-629748/2-A	Lab Control Sample	Total/NA	Water	7470A	629748

Analysis Batch: 630026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total Recoverable	Water	6020B	629743
240-212424-2	MW-20-F-20240930-01	Total Recoverable	Water	6020B	629743
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	6020B	629743
LCS 240-629743/3-A	Lab Control Sample	Total Recoverable	Water	6020B	629743

Analysis Batch: 630095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total Recoverable	Water	6010D	629743
240-212424-2	MW-20-F-20240930-01	Total Recoverable	Water	6010D	629743
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	6010D	629743
LCS 240-629743/2-A	Lab Control Sample	Total Recoverable	Water	6010D	629743

Analysis Batch: 630125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total Recoverable	Water	6020B	629743
240-212424-2	MW-20-F-20240930-01	Total Recoverable	Water	6020B	629743
MB 240-629743/1-A	Method Blank	Total Recoverable	Water	6020B	629743
LCS 240-629743/3-A	Lab Control Sample	Total Recoverable	Water	6020B	629743

General Chemistry

Analysis Batch: 629757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	SM 2540C	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	SM 2540C	
MB 240-629757/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-629757/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

General Chemistry

Analysis Batch: 629930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	2320B-1997	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	2320B-1997	
MB 240-629930/28	Method Blank	Total/NA	Water	2320B-1997	

Analysis Batch: 630113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	300.0	
240-212424-1	96153R-F-20240930-01	Total/NA	Water	300.0	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	300.0	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	300.0	
MB 240-630113/3	Method Blank	Total/NA	Water	300.0	
LCS 240-630113/4	Lab Control Sample	Total/NA	Water	300.0	

Rad

Prep Batch: 682845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	PrecSep-21	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	PrecSep-21	
MB 160-682845/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-682845/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 682846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-212424-1	96153R-F-20240930-01	Total/NA	Water	PrecSep_0	
240-212424-2	MW-20-F-20240930-01	Total/NA	Water	PrecSep_0	
MB 160-682846/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-682846/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Project/Site: Gavin CCR

Job ID: 240-212424-1

Client Sample ID: 96153R-F-20240930-01

Lab Sample ID: 240-212424-1

Date Collected: 09/30/24 12:59
Date Received: 10/04/24 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6010D		1	630095	RKT	EET CLE	10/09/24 23:31
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630026	DSH	EET CLE	10/08/24 22:01
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630125	AJC	EET CLE	10/09/24 12:57
Total/NA	Prep	7470A			629748	S4FJ	EET CLE	10/07/24 14:00
Total/NA	Analysis	7470A		1	629951	TQ6W	EET CLE	10/08/24 09:38
Total/NA	Analysis	2320B-1997		1	629930	GZF4	EET CLE	10/07/24 20:05
Total/NA	Analysis	300.0		1	630113	JMR	EET CLE	10/10/24 19:13
Total/NA	Analysis	300.0		5	630113	JMR	EET CLE	10/10/24 19:33
Total/NA	Analysis	SM 2540C		1	629757	AAP	EET CLE	10/07/24 10:19
Total/NA	Prep	PrecSep-21			682845	BCE	EET SL	10/09/24 08:16
Total/NA	Analysis	9315		1	686243	SWS	EET SL	11/01/24 09:33
Total/NA	Prep	PrecSep_0			682846	BCE	EET SL	10/09/24 08:23
Total/NA	Analysis	9320		1	685112	SWS	EET SL	10/25/24 11:50
Total/NA	Analysis	Ra226_Ra228		1	686788	FLC	EET SL	11/04/24 13:00

Client Sample ID: MW-20-F-20240930-01

Lab Sample ID: 240-212424-2

Date Collected: 09/30/24 14:10
Date Received: 10/04/24 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6010D		1	630095	RKT	EET CLE	10/09/24 23:44
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630026	DSH	EET CLE	10/08/24 22:05
Total Recoverable	Prep	3005A			629743	S4FJ	EET CLE	10/07/24 14:00
Total Recoverable	Analysis	6020B		1	630125	AJC	EET CLE	10/09/24 13:00
Total/NA	Prep	7470A			629748	S4FJ	EET CLE	10/07/24 14:00
Total/NA	Analysis	7470A		1	629951	TQ6W	EET CLE	10/08/24 09:40
Total/NA	Analysis	2320B-1997		1	629930	GZF4	EET CLE	10/07/24 20:10
Total/NA	Analysis	300.0		1	630113	JMR	EET CLE	10/10/24 19:52
Total/NA	Analysis	300.0		10	630113	JMR	EET CLE	10/10/24 20:12
Total/NA	Analysis	SM 2540C		1	629757	AAP	EET CLE	10/07/24 10:19
Total/NA	Prep	PrecSep-21			682845	BCE	EET SL	10/09/24 08:16
Total/NA	Analysis	9315		1	686243	SWS	EET SL	11/01/24 09:33
Total/NA	Prep	PrecSep_0			682846	BCE	EET SL	10/09/24 08:23
Total/NA	Analysis	9320		1	685112	SWS	EET SL	10/25/24 11:50
Total/NA	Analysis	Ra226_Ra228		1	686788	FLC	EET SL	11/04/24 13:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212424-1
Project/Site: Gavin CCR

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-212424-1
Project/Site: Gavin CCR

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

3.0/3.1

Columbus
209

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins
Environment Testing

Client Information	Sampler: Bobby Cato	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No. 240-111832-39818.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin:	Page: Page 1 of 8
Company: Lightstone Generation Gavin Power LLC	PWSID			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020, 7470A	2540C_Calcd - TDS	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	300.0_28D - Chloride, Fluoride & Sulfate	2320B - (MOD) Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	D	N	N	X	
9615 3R-F-20240930-01	9-30-24	1259	G	Water	N		1	1	2	1	1		
MW-20-F-20240930-01	9-30-24	1410	G	Water	N		1	1	2	1	1		
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									
				Water									

240-212424 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Bobby Cato	10-3-24/0915	KEMRON	Ashley Deal	10-3-24 12:56	ETA
Ashley Deal	10-3-24 1700	ETA	JMOROSKO	10/4/24 0800	OBN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Cavin Site Name

Cooler unpacked by: JMOROSKO

Cooler Received on 10/4/24 Opened on 10/4/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam Plastic Bag None Other

COOLANT Wet Ice Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ See Multiple Cooler Form

IR GUN # 17 (CF T0.1 °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5 Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7 Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes	No
11 Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form			
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 11	2.5	2.6	(Wet Ice) Blue Ice Dry Ice Water None
(EC) Client Box Other	IR GUN #: 13	3.0	3.1	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice Blue Ice Dry Ice Water None
☐ See Temperature Excursion Form				

10/4/2024

Login Container Summary Report

240-212424

11/4/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
96153R-4-20240930-01	240-212424-A-1	Plastic 60 mL - unpreserved				
96153R-4-20240930-01	240-212424-B-1	Plastic 60 mL - unpreserved				
96153R-4-20240930-01	240-212424-C-1	Plastic 500ml - unpreserved				
96153R-4-20240930-01	240-212424-D-1	Plastic 500ml - with Nitric Acid	<2			
96153R-4-20240930-01	240-212424-G-1	Plastic 1 liter - Nitric Acid	<2			
96153R-4-20240930-01	240-212424-H-1	Plastic 1 liter - Nitric Acid	<2			
MW-20-F-20240930-01	240-212424-A-2	Plastic 60 mL - unpreserved				
MW-20-F-20240930-01	240-212424-B-2	Plastic 60 mL - unpreserved				
MW-20-F-20240930-01	240-212424-C-2	Plastic 500ml - unpreserved				
MW-20-F-20240930-01	240-212424-D-2	Plastic 500ml - with Nitric Acid	<2			
MW-20-F-20240930-01	240-212424-E-2	Plastic 1 liter - Nitric Acid	<2			
MW-20-F-20240930-01	240-212424-F-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-191635.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-212424-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/3/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Gavin CCR	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
96153R-F-20240930-01 (240-212424-1)	9/30/24	12:59 Eastern	G	Water			X	X	X	2	
MW-20-F-20240930-01 (240-212424-2)	9/30/24	14:10 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	MALISSA LOAR	10-4-24		Sierra Worthington	10/7 0830	ETA-STL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-212424-1

Login Number: 212424
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/07/24 12:24 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/31/2024 5:38:57 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-213287-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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10/31/2024 5:38:57 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213287-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213287-1 — Eurofins Cleveland

Job Narrative
240-213287-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213287-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213287-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213287-1	2022-12-F-A3-20241016-01	Water	10/16/24 12:10	10/18/24 08:00
240-213287-2	2022-13-F-A3-20241016-01	Water	10/16/24 13:55	10/18/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213287-1

Client Sample ID: 2022-12-F-A3-20241016-01 — Lab Sample ID: 240-213287-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	88	J	100	57	ug/L	1		6010D	Total Recoverable
Calcium	89000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	26000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	16		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.12		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	240		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	600		10	7.8	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-13-F-A3-20241016-01 — Lab Sample ID: 240-213287-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	310		100	57	ug/L	1		6010D	Total Recoverable
Calcium	44000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	11000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	4400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2100000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	3100		25	3.2	mg/L	25		300.0	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	10		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	3600		50	39	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213287-1

Client Sample ID: 2022-12-F-A3-20241016-01

Lab Sample ID: 240-213287-1

Date Collected: 10/16/24 12:10

Matrix: Water

Date Received: 10/18/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	88	J	100	57	ug/L		10/21/24 14:00	10/22/24 15:50	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	89000		1000	250	ug/L		10/21/24 14:00	10/22/24 15:28	1
Magnesium	26000		1000	61	ug/L		10/21/24 14:00	10/22/24 15:28	1
Potassium	3400		1000	220	ug/L		10/21/24 14:00	10/22/24 15:28	1
Sodium	110000		1000	880	ug/L		10/21/24 14:00	10/23/24 20:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	270		5.0	2.6	mg/L			10/23/24 17:45	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	270		5.0	2.6	mg/L			10/23/24 17:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 17:45	1
Chloride (EPA 300.0)	16		1.0	0.13	mg/L			10/30/24 05:57	1
Fluoride (EPA 300.0)	0.12		0.050	0.024	mg/L			10/30/24 05:57	1
Sulfate (EPA 300.0)	240		5.0	1.7	mg/L			10/30/24 06:56	5
Total Dissolved Solids (SM 2540C)	600		10	7.8	mg/L			10/21/24 14:26	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213287-1

Client Sample ID: 2022-13-F-A3-20241016-01

Date Collected: 10/16/24 13:55
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213287-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	310		100	57	ug/L		10/21/24 14:00	10/22/24 15:54	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44000		1000	250	ug/L		10/21/24 14:00	10/22/24 15:35	1
Magnesium	11000		1000	61	ug/L		10/21/24 14:00	10/22/24 15:35	1
Potassium	4400		1000	220	ug/L		10/21/24 14:00	10/22/24 15:35	1
Sodium	2100000		10000	8800	ug/L		10/21/24 14:00	10/23/24 20:50	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	170		5.0	2.6	mg/L			10/23/24 17:50	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	170		5.0	2.6	mg/L			10/23/24 17:50	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 17:50	1
Chloride (EPA 300.0)	3100		25	3.2	mg/L			10/30/24 07:35	25
Fluoride (EPA 300.0)	1.3		0.25	0.12	mg/L			10/30/24 07:16	5
Sulfate (EPA 300.0)	10		5.0	1.7	mg/L			10/30/24 07:16	5
Total Dissolved Solids (SM 2540C)	3600		50	39	mg/L			10/21/24 14:26	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213287-1
Project/Site: Federal CCR Wells - App III

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/21/24 14:00	10/22/24 15:06	1

Lab Sample ID: LCS 240-631641/2-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 15:09	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 15:09	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 15:09	1

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 20:27	1

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	26100		ug/L		104	80 - 120
Magnesium	25000	25200		ug/L		101	80 - 120
Potassium	25000	25900		ug/L		103	80 - 120

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	27400		ug/L		110	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/30
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1

Lab Sample ID: MB 240-632240/4
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	3.68	J	5.0	2.6	mg/L			10/23/24 13:12	1
Bicarbonate Alkalinity as CaCO3	3.68	J	5.0	2.6	mg/L			10/23/24 13:12	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 13:12	1

Lab Sample ID: LCS 240-632240/29
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	267		mg/L		95	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-632819/3
Matrix: Water
Analysis Batch: 632819

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/30/24 02:59	1
Fluoride	ND		0.050	0.024	mg/L			10/30/24 02:59	1
Sulfate	ND		1.0	0.35	mg/L			10/30/24 02:59	1

Lab Sample ID: LCS 240-632819/4
Matrix: Water
Analysis Batch: 632819

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	51.0		mg/L		102	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-631731/1
Matrix: Water
Analysis Batch: 631731

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/21/24 14:26	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-631731/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 631731

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	480		mg/L		97	80 - 120

Metals

Prep Batch: 631641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total Recoverable	Water	3005A	
240-213287-2	2022-13-F-A3-20241016-01	Total Recoverable	Water	3005A	
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total Recoverable	Water	6020B	631641
240-213287-2	2022-13-F-A3-20241016-01	Total Recoverable	Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641

Analysis Batch: 631995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total Recoverable	Water	6010D	631641
240-213287-2	2022-13-F-A3-20241016-01	Total Recoverable	Water	6010D	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6010D	631641
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	6010D	631641

Analysis Batch: 632139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total Recoverable	Water	6020B	631641
240-213287-2	2022-13-F-A3-20241016-01	Total Recoverable	Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641

General Chemistry

Analysis Batch: 631731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total/NA	Water	SM 2540C	
240-213287-2	2022-13-F-A3-20241016-01	Total/NA	Water	SM 2540C	
MB 240-631731/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631731/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total/NA	Water	2320B-1997	
240-213287-2	2022-13-F-A3-20241016-01	Total/NA	Water	2320B-1997	
MB 240-632240/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/4	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/29	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 632819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213287-1	2022-12-F-A3-20241016-01	Total/NA	Water	300.0	
240-213287-1	2022-12-F-A3-20241016-01	Total/NA	Water	300.0	
240-213287-2	2022-13-F-A3-20241016-01	Total/NA	Water	300.0	
240-213287-2	2022-13-F-A3-20241016-01	Total/NA	Water	300.0	
MB 240-632819/3	Method Blank	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 632819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-632819/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213287-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-12-F-A3-20241016-01
Lab Sample ID: 240-213287-1

Date Collected: 10/16/24 12:10
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 15:50
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:28
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	632139	AJC	EET CLE	10/23/24 20:48
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 17:45
Total/NA	Analysis	300.0		1	632819	JMR	EET CLE	10/30/24 05:57
Total/NA	Analysis	300.0		5	632819	JMR	EET CLE	10/30/24 06:56
Total/NA	Analysis	SM 2540C		1	631731	TAV2	EET CLE	10/21/24 14:26

Client Sample ID: 2022-13-F-A3-20241016-01
Lab Sample ID: 240-213287-2

Date Collected: 10/16/24 13:55
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 15:54
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:35
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		10	632139	AJC	EET CLE	10/23/24 20:50
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 17:50
Total/NA	Analysis	300.0		5	632819	JMR	EET CLE	10/30/24 07:16
Total/NA	Analysis	300.0		25	632819	JMR	EET CLE	10/30/24 07:35
Total/NA	Analysis	SM 2540C		1	631731	TAV2	EET CLE	10/21/24 14:26

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213287-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

2.4/25

Chain of Custody Record

Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Costo	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-372-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wewater, Sesolid, Owasteloil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_20D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	D	N	N	X	
2022-17-F-A3-20241016-01	10-16-24	1210	6	W	N		1	1	1		
2022-13-F-A3-20241016-01	10-16-24	1355	5	W	N		1	1	1		

240-213287 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Costo	10-17-24 0930	Kemron	Ashley Deal	10.17.24 1.15	ETA
2	Ashley Deal	10.17.24 1700	ETA		10/18/24 8:00	Eur
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstore Site Name

Cooler unpacked by: JF

Cooler Received on 10/18/24 Opened on 10/18/24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EE Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # _____ (CF_____°C) Observed Cooler Temp _____°C Corrected Cooler Temp _____°C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	Yes No (NA)
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8.	*Could all bottle labels (ID/Date/Time) be reconciled with the COC?*	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC447997
14.	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory
Time preserved. _____ Preservative(s) added/Lot number(s). _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

10/18/2024

Login Container Summary Report

240-213287

10/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A3-20241016-01	240-213287-A-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20241016-01	240-213287-B-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20241016-01	240-213287-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A3-20241016-01	240-213287-A-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20241016-01	240-213287-B-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20241016-01	240-213287-C-2	Plastic 500ml - with Nitric Acid	<2			

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

2.4/25

Chain of Custody Record

Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-372-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-17-F-A3-20241016-01	10-16-24	1210	6	W	N		1	1	1		
2022-13-F-A3-20241016-01	10-16-24	1355	5	W	N		1	1	1		

240-213287 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Casto	10-17-24/0930	Kamran	Ashley Deal	10.17.24 1:15	EDA
2	Ashley Deal	10.17.24 1700	EDA		10/18/24 8:00	EVO
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

10/31/2024

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Site Name

Cooler unpacked by: JF

Cooler Received on 10/18/24 Opened on 10/18/24

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EE Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp _____ °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	Yes No (NA)
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8.	*Could all bottle labels (ID/Date/Time) be reconciled with the COC?*	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12.	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC447997
14.	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No (NA)
16.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)
17	Was a LL Hg or Me Hg trip blank present? _____	Yes (No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container
Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory
Time preserved _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

10/18/2024

Login Container Summary Report

240-213287

10/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A3-20241016-01	240-213287-A-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20241016-01	240-213287-B-1	Plastic 250ml - unpreserved				
2022-12-F-A3-20241016-01	240-213287-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A3-20241016-01	240-213287-A-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20241016-01	240-213287-B-2	Plastic 250ml - unpreserved				
2022-13-F-A3-20241016-01	240-213287-C-2	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 10/31/2024 5:38:59 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-213288-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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10/31/2024 5:38:59 PM

Authorized for release by
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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213288-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213288-1 Eurofins Cleveland

Job Narrative
240-213288-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2540C_Calcd: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to the result being over the residue limit.
: 9631-F-A3-20241014-01 (240-213288-1).

Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 9631-F-A3-20241014-01 (240-213288-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213288-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213288-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213288-1	9631-F-A3-20241014-01	Water	10/14/24 13:30	10/18/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213288-1

Client Sample ID: 9631-F-A3-20241014-01

Lab Sample ID: 240-213288-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Calcium	1700000		50000	13000	ug/L	50		6020B	Total Recoverable
Magnesium	490000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	25000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	14000000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	74	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	74	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	25000		1000	130	mg/L	1000		300.0	Total/NA
Total Dissolved Solids	42000	H	1000	780	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213288-1

Client Sample ID: 9631-F-A3-20241014-01
Date Collected: 10/14/24 13:30
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213288-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		10/21/24 14:00	10/22/24 15:23	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1700000		50000	13000	ug/L		10/21/24 14:00	10/23/24 20:32	50
Magnesium	490000		1000	61	ug/L		10/21/24 14:00	10/22/24 15:14	1
Potassium	25000		1000	220	ug/L		10/21/24 14:00	10/22/24 15:14	1
Sodium	14000000		50000	44000	ug/L		10/21/24 14:00	10/23/24 20:32	50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	74	B	5.0	2.6	mg/L			10/23/24 18:16	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	74	B	5.0	2.6	mg/L			10/23/24 18:16	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:16	1
Chloride (EPA 300.0)	25000		1000	130	mg/L			10/30/24 04:38	1000
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/30/24 03:39	100
Sulfate (EPA 300.0)	ND		100	35	mg/L			10/30/24 03:39	100
Total Dissolved Solids (SM 2540C)	42000	H	1000	780	mg/L			10/22/24 13:44	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/21/24 14:00	10/22/24 15:06	1

Lab Sample ID: LCS 240-631641/2-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Lab Sample ID: 240-213288-1 MS
Matrix: Water
Analysis Batch: 631995

Client Sample ID: 9631-F-A3-20241014-MS-01
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	380		100	476		ug/L		98	75 - 125

Lab Sample ID: 240-213288-1 MSD
Matrix: Water
Analysis Batch: 631995

Client Sample ID: 9631-F-A3-20241014-MSD-01
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	380		100	487		ug/L		109	75 - 125	2	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 15:09	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 15:09	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 15:09	1

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 20:27	1

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	26100		ug/L		104	80 - 120
Magnesium	25000	25200		ug/L		101	80 - 120
Potassium	25000	25900		ug/L		103	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			25000	27400		ug/L		110	80 - 120		

Lab Sample ID: 240-213288-1 MS
Matrix: Water
Analysis Batch: 631977

Client Sample ID: 9631-F-A3-20241014-MS-01
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Magnesium	490000		25000	492000	4	ug/L		5	80 - 120		
Potassium	25000		25000	49800		ug/L		100	80 - 120		

Lab Sample ID: 240-213288-1 MS
Matrix: Water
Analysis Batch: 632139

Client Sample ID: 9631-F-A3-20241014-MS-01
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium	1700000		25000	2030000	4	ug/L		1213	80 - 120		
Sodium	14000000		25000	16000000	4	ug/L		8861	80 - 120		

Lab Sample ID: 240-213288-1 MSD
Matrix: Water
Analysis Batch: 631977

Client Sample ID: 9631-F-A3-20241014-MSD-01
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Magnesium	490000		25000	498000	4	ug/L		29	80 - 120	1	20
Potassium	25000		25000	51000		ug/L		105	80 - 120	2	20

Lab Sample ID: 240-213288-1 MSD
Matrix: Water
Analysis Batch: 632139

Client Sample ID: 9631-F-A3-20241014-MSD-01
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	1700000		25000	1760000	4	ug/L		169	80 - 120	14	20
Sodium	14000000		25000	13700000	4	ug/L		-215	80 - 120	15	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/30
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-632240/56
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Bicarbonate Alkalinity as CaCO3	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 18:06	1

Lab Sample ID: LCS 240-632240/55
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	265		mg/L		95	86 - 123

Lab Sample ID: 240-213288-1 DU
Matrix: Water
Analysis Batch: 632240

Client Sample ID: 9631-F-A3-20241014-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	74	B	78.6		mg/L		6	20
Bicarbonate Alkalinity as CaCO3	74	B	78.6		mg/L		6	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-632819/3
Matrix: Water
Analysis Batch: 632819

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/30/24 02:59	1
Fluoride	ND		0.050	0.024	mg/L			10/30/24 02:59	1
Sulfate	ND		1.0	0.35	mg/L			10/30/24 02:59	1

Lab Sample ID: LCS 240-632819/4
Matrix: Water
Analysis Batch: 632819

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	51.0		mg/L		102	90 - 110

Lab Sample ID: 240-213288-1 MS
Matrix: Water
Analysis Batch: 632819

Client Sample ID: 9631-F-A3-20241014-MS-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	ND		250	262		mg/L		105	80 - 120
Sulfate	ND		5000	5300		mg/L		106	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 240-213288-1 MS
Matrix: Water
Analysis Batch: 632819

Client Sample ID: 9631-F-A3-20241014-MS-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	25000		50000	74700		mg/L		99	80 - 120		

Lab Sample ID: 240-213288-1 MSD
Matrix: Water
Analysis Batch: 632819

Client Sample ID: 9631-F-A3-20241014-MSD-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		250	264		mg/L		106	80 - 120	1	15
Sulfate	ND		5000	5310		mg/L		106	80 - 120	0	15

Lab Sample ID: 240-213288-1 MSD
Matrix: Water
Analysis Batch: 632819

Client Sample ID: 9631-F-A3-20241014-MSD-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	25000		50000	74900		mg/L		100	80 - 120	0	15

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-631901/1
Matrix: Water
Analysis Batch: 631901

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/22/24 11:48	1

Lab Sample ID: LCS 240-631901/2
Matrix: Water
Analysis Batch: 631901

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			495	426		mg/L		86	80 - 120		

Metals

Prep Batch: 631641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total Recoverable	Water	3005A	
240-213288-1	9631-F-A3-20241014-01	Total Recoverable	Water	3005A	
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-213288-1 MS	9631-F-A3-20241014-MS-01	Total Recoverable	Water	3005A	
240-213288-1 MSD	9631-F-A3-20241014-MSD-01	Total Recoverable	Water	3005A	

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total Recoverable	Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641
240-213288-1 MS	9631-F-A3-20241014-MS-01	Total Recoverable	Water	6020B	631641
240-213288-1 MSD	9631-F-A3-20241014-MSD-01	Total Recoverable	Water	6020B	631641

Analysis Batch: 631995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total Recoverable	Water	6010D	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6010D	631641
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	6010D	631641
240-213288-1 MS	9631-F-A3-20241014-MS-01	Total Recoverable	Water	6010D	631641
240-213288-1 MSD	9631-F-A3-20241014-MSD-01	Total Recoverable	Water	6010D	631641

Analysis Batch: 632139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total Recoverable	Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641
240-213288-1 MS	9631-F-A3-20241014-MS-01	Total Recoverable	Water	6020B	631641
240-213288-1 MSD	9631-F-A3-20241014-MSD-01	Total Recoverable	Water	6020B	631641

General Chemistry

Analysis Batch: 631901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total/NA	Water	SM 2540C	
MB 240-631901/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631901/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total/NA	Water	2320B-1997	
MB 240-632240/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/55	Lab Control Sample	Total/NA	Water	2320B-1997	
240-213288-1 DU	9631-F-A3-20241014-01	Total/NA	Water	2320B-1997	

Analysis Batch: 632819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 632819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213288-1	9631-F-A3-20241014-01	Total/NA	Water	300.0	
MB 240-632819/3	Method Blank	Total/NA	Water	300.0	
LCS 240-632819/4	Lab Control Sample	Total/NA	Water	300.0	
240-213288-1 MS	9631-F-A3-20241014-MS-01	Total/NA	Water	300.0	
240-213288-1 MS	9631-F-A3-20241014-MS-01	Total/NA	Water	300.0	
240-213288-1 MSD	9631-F-A3-20241014-MSD-01	Total/NA	Water	300.0	
240-213288-1 MSD	9631-F-A3-20241014-MSD-01	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213288-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 9631-F-A3-20241014-01
Lab Sample ID: 240-213288-1
Date Collected: 10/14/24 13:30
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 15:23
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:14
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		50	632139	AJC	EET CLE	10/23/24 20:32
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:16
Total/NA	Analysis	300.0		100	632819	JMR	EET CLE	10/30/24 03:39
Total/NA	Analysis	300.0		1000	632819	JMR	EET CLE	10/30/24 04:38
Total/NA	Analysis	SM 2540C		1	631901	TAV2	EET CLE	10/22/24 13:44

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213288-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

2.4/25

Chain of Custody Record

Columbus
209

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, Aair)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
9631-F-A3-20241014-01	10-14-24	1330	G	W	N		1	1	1		
9631-F-A3-20241014-MS-01	10-14-24	1330	G	W	N	Y	1	1	1		
9631-F-A3-20241014-MSD-01	10-14-24	1330	G	W	N	Y	1	1	1		

2- 0-213288 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10-17-24 / 0930	Kleinfelder	Ashley Deal	10-17-24 1:15	EDA
2	Ashley Deal	10-17-24 1700	EDA	[signature]	10/18/24 8:00	Euro
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstone Site Name

Cooler Received on 10/18/24 Opened on 10/18/24

Cooler unpacked by: JF

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EE Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # (CF °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No
	-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
	-Were tamper/custody seals intact and uncompromised?	Yes No (NA)
3	Shippers' packing slip attached to the cooler(s)?	Yes (No)
4.	Did custody papers accompany the sample(s)?	(Yes) No
5	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8.	*Could all bottle labels (ID/Date/Time) be reconciled with the COC?*	(Yes) No
9	For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	
10	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
11	Sufficient quantity received to perform indicated analyses?	(Yes) No
12.	Are these work share samples and all listed on the COC?	Yes (No)
	If yes, Questions 13-17 have been checked at the originating laboratory	
13	Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA pH Strip Lot# HC447997
14	Were VOAs on the COC?	Yes (No)
15	Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes No (NA)
16	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes (No)
17	Was a LL Hg or Me Hg trip blank present?	Yes (No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 18	4.7	4.4	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 17	2.4	2.5	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	3.8	3.5	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

10/18/2024

Login Container Summary Report

240-213288

10/31/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A3-20241014-01	240-213288-A-1	Plastic 250ml - unpreserved				
9631-F-A3-20241014-MS-01	240-213288-A-1 MS	Plastic 250ml - unpreserved				
9631-F-A3-20241014-MSD-01	240-213288-A-1 MSD	Plastic 250ml - unpreserved				
9631-F-A3-20241014-01	240-213288-B-1	Plastic 250ml - unpreserved				
9631-F-A3-20241014-MS-01	240-213288-B-1 MS	Plastic 250ml - unpreserved				
9631-F-A3-20241014-MSD-01	240-213288-B-1 MSD	Plastic 250ml - unpreserved				
9631-F-A3-20241014-01	240-213288-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A3-20241014-MS-01	240-213288-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A3-20241014-MSD-01	240-213288-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-213288-1

Login Number: 213288

List Source: Eurofins Cleveland

List Number: 1

Creator: Rigdon, Jessica M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 11/4/2024 10:03:54 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-213289-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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11/4/2024 10:03:54 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Qualifiers

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213289-1 — Eurofins Cleveland

Job Narrative
240-213289-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5°C, 3.5°C and 4.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213289-1	2022-05-F-A3-20241015-01	Water	10/15/24 12:05	10/18/24 08:00
240-213289-2	DUP-001-F-A3-20241015-01	Water	10/15/24 00:00	10/18/24 08:00
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Water	10/15/24 14:40	10/18/24 08:00
240-213289-4	EB-001-F-A3-20241015-01	Water	10/15/24 14:45	10/18/24 08:00
240-213289-5	2022-04-F-A3-20241016-01	Water	10/16/24 10:35	10/18/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213289-1

Client Sample ID: 2022-05-F-A3-20241015-01 — Lab Sample ID: 240-213289-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	370		100	57	ug/L	1		6010D	Total Recoverable
Calcium	95000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	28000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	6500		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	3000000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	200		5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	4800		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.1		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	53		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	7600		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-001-F-A3-20241015-01 — Lab Sample ID: 240-213289-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	360		100	57	ug/L	1		6010D	Total Recoverable
Calcium	92000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	28000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	6400		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	3200000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	210	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	4800		50	6.4	mg/L	50		300.0	Total/NA
Fluoride	1.1		0.25	0.12	mg/L	5		300.0	Total/NA
Sulfate	56		5.0	1.7	mg/L	5		300.0	Total/NA
Total Dissolved Solids	7400		50	39	mg/L	1		SM 2540C	Total/NA

Client Sample ID: FIELD BLANK-001-F-A3-20241015-01 — Lab Sample ID: 240-213289-3

No Detections.

Client Sample ID: EB-001-F-A3-20241015-01 — Lab Sample ID: 240-213289-4

No Detections.

Client Sample ID: 2022-04-F-A3-20241016-01 — Lab Sample ID: 240-213289-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	720		100	57	ug/L	1		6010D	Total Recoverable
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	32000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	4000		1000	220	ug/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-04-F-A3-20241016-01 (Continued)
Lab Sample ID: 240-213289-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	100000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	480	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	480	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	32		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	83		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	590		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213289-1

Client Sample ID: 2022-05-F-A3-20241015-01

Date Collected: 10/15/24 12:05
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213289-1

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	370		100	57	ug/L		10/21/24 14:00	10/22/24 15:59	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	95000		1000	250	ug/L		10/21/24 14:00	10/22/24 15:38	1
Magnesium	28000		1000	61	ug/L		10/21/24 14:00	10/22/24 15:38	1
Potassium	6500		1000	220	ug/L		10/21/24 14:00	10/22/24 15:38	1
Sodium	3000000		10000	8800	ug/L		10/21/24 14:00	10/23/24 20:53	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	200		5.0	2.6	mg/L			10/23/24 17:55	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	200		5.0	2.6	mg/L			10/23/24 17:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 17:55	1
Chloride (EPA 300.0)	4800		50	6.4	mg/L			10/30/24 08:15	50
Fluoride (EPA 300.0)	1.1		0.25	0.12	mg/L			10/30/24 07:55	5
Sulfate (EPA 300.0)	53		5.0	1.7	mg/L			10/30/24 07:55	5
Total Dissolved Solids (SM 2540C)	7600		50	39	mg/L			10/21/24 07:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213289-1

Client Sample ID: DUP-001-F-A3-20241015-01

Date Collected: 10/15/24 00:00
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213289-2

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	360		100	57	ug/L		10/21/24 14:00	10/22/24 16:03	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	92000		1000	250	ug/L		10/21/24 14:00	10/22/24 15:41	1
Magnesium	28000		1000	61	ug/L		10/21/24 14:00	10/22/24 15:41	1
Potassium	6400		1000	220	ug/L		10/21/24 14:00	10/22/24 15:41	1
Sodium	3200000		10000	8800	ug/L		10/21/24 14:00	10/23/24 20:56	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	210	B	5.0	2.6	mg/L			10/23/24 18:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	210	B	5.0	2.6	mg/L			10/23/24 18:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:23	1
Chloride (EPA 300.0)	4800		50	6.4	mg/L			10/30/24 08:54	50
Fluoride (EPA 300.0)	1.1		0.25	0.12	mg/L			10/30/24 08:35	5
Sulfate (EPA 300.0)	56		5.0	1.7	mg/L			10/30/24 08:35	5
Total Dissolved Solids (SM 2540C)	7400		50	39	mg/L			10/21/24 07:56	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: FIELD BLANK-001-F-A3-20241015-01

Lab Sample ID: 240-213289-3

Date Collected: 10/15/24 14:40

Matrix: Water

Date Received: 10/18/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/21/24 14:00	10/22/24 16:16	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 15:43	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 15:43	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 15:43	1
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 20:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:28	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:28	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:28	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			11/01/24 16:27	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			11/01/24 16:27	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			11/01/24 16:27	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			10/21/24 07:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213289-1

Client Sample ID: EB-001-F-A3-20241015-01

Date Collected: 10/15/24 14:45
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213289-4

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/21/24 14:00	10/22/24 16:20	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 15:46	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 15:46	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 15:46	1
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 21:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:32	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:32	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:32	1
Chloride (EPA 300.0)	ND		1.0	0.13	mg/L			10/30/24 09:53	1
Fluoride (EPA 300.0)	ND		0.050	0.024	mg/L			10/30/24 09:53	1
Sulfate (EPA 300.0)	ND		1.0	0.35	mg/L			10/30/24 09:53	1
Total Dissolved Solids (SM 2540C)	ND		10	7.8	mg/L			10/21/24 07:56	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213289-1

Client Sample ID: 2022-04-F-A3-20241016-01

Date Collected: 10/16/24 10:35
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213289-5

Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	720		100	57	ug/L		10/21/24 14:00	10/22/24 16:25	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		1000	250	ug/L		10/21/24 14:00	10/22/24 15:49	1
Magnesium	32000		1000	61	ug/L		10/21/24 14:00	10/22/24 15:49	1
Potassium	4000		1000	220	ug/L		10/21/24 14:00	10/22/24 15:49	1
Sodium	100000		1000	880	ug/L		10/21/24 14:00	10/24/24 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	480	B	5.0	2.6	mg/L			10/23/24 18:36	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	480	B	5.0	2.6	mg/L			10/23/24 18:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:36	1
Chloride (EPA 300.0)	32		1.0	0.13	mg/L			10/30/24 10:53	1
Fluoride (EPA 300.0)	0.11		0.050	0.024	mg/L			10/30/24 10:53	1
Sulfate (EPA 300.0)	83		1.0	0.35	mg/L			10/30/24 10:53	1
Total Dissolved Solids (SM 2540C)	590		10	7.8	mg/L			10/22/24 08:01	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/21/24 14:00	10/22/24 15:06	1

Lab Sample ID: LCS 240-631641/2-A
Matrix: Water
Analysis Batch: 631995

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1020		ug/L		102	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 15:09	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 15:09	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 15:09	1

Lab Sample ID: MB 240-631641/1-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 20:27	1

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	26100		ug/L		104	80 - 120
Magnesium	25000	25200		ug/L		101	80 - 120
Potassium	25000	25900		ug/L		103	80 - 120

Lab Sample ID: LCS 240-631641/3-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631641

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	27400		ug/L		110	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/30
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1

Lab Sample ID: MB 240-632240/4
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	3.68	J	5.0	2.6	mg/L			10/23/24 13:12	1
Bicarbonate Alkalinity as CaCO3	3.68	J	5.0	2.6	mg/L			10/23/24 13:12	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 13:12	1

Lab Sample ID: MB 240-632240/56
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Bicarbonate Alkalinity as CaCO3	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 18:06	1

Lab Sample ID: LCS 240-632240/29
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	267		mg/L		95	86 - 123

Lab Sample ID: LCS 240-632240/55
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	265		mg/L		95	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-632819/3
Matrix: Water
Analysis Batch: 632819

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/30/24 02:59	1
Fluoride	ND		0.050	0.024	mg/L			10/30/24 02:59	1
Sulfate	ND		1.0	0.35	mg/L			10/30/24 02:59	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-632819/4
Matrix: Water
Analysis Batch: 632819

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.2		mg/L		98	90 - 110
Fluoride	2.50	2.55		mg/L		102	90 - 110
Sulfate	50.0	51.0		mg/L		102	90 - 110

Lab Sample ID: MB 240-633523/3
Matrix: Water
Analysis Batch: 633523

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			11/01/24 11:21	1
Fluoride	ND		0.050	0.024	mg/L			11/01/24 11:21	1
Sulfate	ND		1.0	0.35	mg/L			11/01/24 11:21	1

Lab Sample ID: LCS 240-633523/4
Matrix: Water
Analysis Batch: 633523

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.8		mg/L		102	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	51.6		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-631600/1
Matrix: Water
Analysis Batch: 631600

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/21/24 07:56	1

Lab Sample ID: LCS 240-631600/2
Matrix: Water
Analysis Batch: 631600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	460		mg/L		93	80 - 120

Lab Sample ID: MB 240-631808/1
Matrix: Water
Analysis Batch: 631808

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/22/24 08:01	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213289-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-631808/2
Matrix: Water
Analysis Batch: 631808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	469		mg/L		95	80 - 120

Metals

Prep Batch: 631641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total Recoverable	Water	3005A	
240-213289-2	DUP-001-F-A3-20241015-01	Total Recoverable	Water	3005A	
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total Recoverable	Water	3005A	
240-213289-4	EB-001-F-A3-20241015-01	Total Recoverable	Water	3005A	
240-213289-5	2022-04-F-A3-20241016-01	Total Recoverable	Water	3005A	
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-2	DUP-001-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-4	EB-001-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-5	2022-04-F-A3-20241016-01	Total Recoverable	Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641

Analysis Batch: 631995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total Recoverable	Water	6010D	631641
240-213289-2	DUP-001-F-A3-20241015-01	Total Recoverable	Water	6010D	631641
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total Recoverable	Water	6010D	631641
240-213289-4	EB-001-F-A3-20241015-01	Total Recoverable	Water	6010D	631641
240-213289-5	2022-04-F-A3-20241016-01	Total Recoverable	Water	6010D	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6010D	631641
LCS 240-631641/2-A	Lab Control Sample	Total Recoverable	Water	6010D	631641

Analysis Batch: 632139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-2	DUP-001-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
240-213289-4	EB-001-F-A3-20241015-01	Total Recoverable	Water	6020B	631641
MB 240-631641/1-A	Method Blank	Total Recoverable	Water	6020B	631641
LCS 240-631641/3-A	Lab Control Sample	Total Recoverable	Water	6020B	631641

Analysis Batch: 632379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-5	2022-04-F-A3-20241016-01	Total Recoverable	Water	6020B	631641

General Chemistry

Analysis Batch: 631600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total/NA	Water	SM 2540C	
240-213289-2	DUP-001-F-A3-20241015-01	Total/NA	Water	SM 2540C	
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total/NA	Water	SM 2540C	
240-213289-4	EB-001-F-A3-20241015-01	Total/NA	Water	SM 2540C	
MB 240-631600/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 631600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-631600/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 631808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-5	2022-04-F-A3-20241016-01	Total/NA	Water	SM 2540C	
MB 240-631808/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-631808/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total/NA	Water	2320B-1997	
240-213289-2	DUP-001-F-A3-20241015-01	Total/NA	Water	2320B-1997	
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total/NA	Water	2320B-1997	
240-213289-4	EB-001-F-A3-20241015-01	Total/NA	Water	2320B-1997	
240-213289-5	2022-04-F-A3-20241016-01	Total/NA	Water	2320B-1997	
MB 240-632240/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/4	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/29	Lab Control Sample	Total/NA	Water	2320B-1997	
LCS 240-632240/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 632819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-1	2022-05-F-A3-20241015-01	Total/NA	Water	300.0	
240-213289-1	2022-05-F-A3-20241015-01	Total/NA	Water	300.0	
240-213289-2	DUP-001-F-A3-20241015-01	Total/NA	Water	300.0	
240-213289-2	DUP-001-F-A3-20241015-01	Total/NA	Water	300.0	
240-213289-4	EB-001-F-A3-20241015-01	Total/NA	Water	300.0	
240-213289-5	2022-04-F-A3-20241016-01	Total/NA	Water	300.0	
MB 240-632819/3	Method Blank	Total/NA	Water	300.0	
LCS 240-632819/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 633523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213289-3	FIELD BLANK-001-F-A3-20241015-01	Total/NA	Water	300.0	
MB 240-633523/3	Method Blank	Total/NA	Water	300.0	
LCS 240-633523/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-05-F-A3-20241015-01
Lab Sample ID: 240-213289-1

Date Collected: 10/15/24 12:05
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 15:59
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:38
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		10	632139	AJC	EET CLE	10/23/24 20:53
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 17:55
Total/NA	Analysis	300.0		5	632819	JMR	EET CLE	10/30/24 07:55
Total/NA	Analysis	300.0		50	632819	JMR	EET CLE	10/30/24 08:15
Total/NA	Analysis	SM 2540C		1	631600	TAV2	EET CLE	10/21/24 07:56

Client Sample ID: DUP-001-F-A3-20241015-01
Lab Sample ID: 240-213289-2

Date Collected: 10/15/24 00:00
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:03
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:41
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		10	632139	AJC	EET CLE	10/23/24 20:56
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:23
Total/NA	Analysis	300.0		5	632819	JMR	EET CLE	10/30/24 08:35
Total/NA	Analysis	300.0		50	632819	JMR	EET CLE	10/30/24 08:54
Total/NA	Analysis	SM 2540C		1	631600	TAV2	EET CLE	10/21/24 07:56

Client Sample ID: FIELD BLANK-001-F-A3-20241015-01
Lab Sample ID: 240-213289-3

Date Collected: 10/15/24 14:40
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:16
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:43
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	632139	AJC	EET CLE	10/23/24 20:58
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:28
Total/NA	Analysis	300.0		1	633523	JMR	EET CLE	11/01/24 16:27
Total/NA	Analysis	SM 2540C		1	631600	TAV2	EET CLE	10/21/24 07:56

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: EB-001-F-A3-20241015-01
Lab Sample ID: 240-213289-4

Date Collected: 10/15/24 14:45
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:20
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:46
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	632139	AJC	EET CLE	10/23/24 21:01
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:32
Total/NA	Analysis	300.0		1	632819	JMR	EET CLE	10/30/24 09:53
Total/NA	Analysis	SM 2540C		1	631600	TAV2	EET CLE	10/21/24 07:56

Client Sample ID: 2022-04-F-A3-20241016-01
Lab Sample ID: 240-213289-5

Date Collected: 10/16/24 10:35
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6010D		1	631995	RKT	EET CLE	10/22/24 16:25
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 15:49
Total Recoverable	Prep	3005A			631641	GK	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	632379	AJC	EET CLE	10/24/24 12:57
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:36
Total/NA	Analysis	300.0		1	632819	JMR	EET CLE	10/30/24 10:53
Total/NA	Analysis	SM 2540C		1	631808	TAV2	EET CLE	10/22/24 08:01

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213289-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Client Information

Client Contact: Taylor Huffman	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Company: Lightstone Generation Gavin Power LLC	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Address: 7397 OH-7	PWSID:	Due Date Requested:		Job #:
City: Cheshire		TAT Requested (days):		
State, Zip: OH, 45620		Compliance Project: Δ Yes Δ No		
Phone: 740-925-3171(Tel)		PO #: 2935505		
Email: taylor.huffman@lightstonegen.com		WO #:		
Project Name: Federal CCR Wells - App III		Project #: 24019633		
Site:		SSOW#:		

Analysis Requested

Sample Identification	Sample Date	Sample Time	Type (C=comp, G=grab)	S=solid, O=waste/oil, BT=Tissue, A=Air	Field Filtered (Yes or No)	Perform MS/MSD (Yes or No)	6010B, D	2540C,28D N	2320B N	Total Containers	Special Instructions/Note:
			Preservation Code:								
2022-CS-F-A3-20241015-01	10-15-24	1255	G	W	N		1	1	1		
DUP-001-F-A3-20241015-01	10-15-24	—	G	W	N		1	1	1		
FieldBlank-001-F-A3-20241015-01	10-15-24	1440	G	W	N		1	1	1		
EB-001-F-A3-20241015-01	10-15-24	1445	G	W	N		1	1	1		
2022-04-F-A3-20241016-01	10/6/24	1035	G	W	N		1	1	1		

240-213289 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Bobby Casto	Date/Time: 10-17-24 0930	Company: KEMRON	Received by: Ashley Deal	Date/Time: 10.17.24 1:15	Company: ETA		
Relinquished by: Ashley Deal	Date/Time: 10.17.24 1700	Company: ETA	Received by:	Date/Time: 10/18/24 8:00	Company:		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Lightstore Site Name

Cooler unpacked by: JF

Cooler Received on 10/18/24 Opened on 10/18/24

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EE Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT. (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # (CF °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	Yes	No (NA)
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved. Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 18	4.7	4.4	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 17	2.4	2.5	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	3.8	3.5	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice

10/18/2024

Login Container Summary Report

240-213289

11/4/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A3-20241015-01	240-213289-A-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20241015-01	240-213289-B-1	Plastic 250ml - unpreserved				
2022-05-F-A3-20241015-01	240-213289-C-1	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A3-20241015-01	240-213289-A-2	Plastic 250ml - unpreserved				
DUP-001-F-A3-20241015-01	240-213289-B-2	Plastic 250ml - unpreserved				
DUP-001-F-A3-20241015-01	240-213289-C-2	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-A3-20241015-01	240-213289-A-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A3-20241015-01	240-213289-B-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A3-20241015-01	240-213289-C-3	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A3-20241015-01	240-213289-A-4	Plastic 250ml - unpreserved				
EB-001-F-A3-20241015-01	240-213289-B-4	Plastic 250ml - unpreserved				
EB-001-F-A3-20241015-01	240-213289-C-4	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-A3-20241016-01	240-213289-A-5	Plastic 250ml - unpreserved				
2022-04-F-A3-20241016-01	240-213289-B-5	Plastic 250ml - unpreserved				
2022-04-F-A3-20241016-01	240-213289-C-5	Plastic 500ml - with Nitric Acid	<2			

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 11/19/2024 11:23:47 AM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-213290-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/19/2024 11:23:47 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
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(615)301-5761

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Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213290-1 — Eurofins Cleveland

Job Narrative
240-213290-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213290-1	2022-12-F-A4-20241016-01	Water	10/16/24 12:10	10/18/24 08:00
240-213290-2	2022-13-F-A4-20241016-01	Water	10/16/24 13:55	10/18/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-12-F-A4-20241016-01
Lab Sample ID: 240-213290-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	12		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	86000		1000	250	ug/L	1		6020B	Total Recoverable
Lithium	20		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	24000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	3000		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	110000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	270	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	270	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.13		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

Client Sample ID: 2022-13-F-A4-20241016-01
Lab Sample ID: 240-213290-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.0	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	730		50	7.7	ug/L	10		6020B	Total Recoverable
Calcium	41000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.24	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	48		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	10000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	46		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	1900000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	170	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	170	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213290-1

Client Sample ID: 2022-12-F-A4-20241016-01

Date Collected: 10/16/24 12:10
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213290-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:19	1
Arsenic	ND		5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:19	1
Barium	**12**		5.0	0.77	ug/L		10/21/24 14:00	10/23/24 20:16	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:19	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:19	1
Calcium	**86000**		1000	250	ug/L		10/21/24 14:00	10/22/24 18:19	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:19	1
Cobalt	ND		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:19	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:19	1
Lithium	**20**		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:19	1
Magnesium	**24000**		1000	61	ug/L		10/21/24 14:00	10/22/24 18:19	1
Molybdenum	ND		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:19	1
Potassium	**3000**		1000	220	ug/L		10/21/24 14:00	10/22/24 18:19	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:19	1
Sodium	**110000**		1000	880	ug/L		10/21/24 14:00	10/23/24 20:16	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:19	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**270**	**B**	5.0	2.6	mg/L			10/23/24 18:42	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**270**	**B**	5.0	2.6	mg/L			10/23/24 18:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:42	1
Fluoride (EPA 300.0-1993 R2.1)	**0.13**		0.050	0.024	mg/L			10/31/24 07:49	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0419	U	0.0879	0.0879	1.00	0.159	pCi/L	10/23/24 08:27	11/14/24 20:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.220	U	0.319	0.320	1.00	0.539	pCi/L	10/23/24 08:31	11/11/24 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*
Y Carrier	*84.5*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-12-F-A4-20241016-01
Lab Sample ID: 240-213290-1
Date Collected: 10/16/24 12:10
Matrix: Water
Date Received: 10/18/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.262	U	0.331	0.332	5.00	0.539	pCi/L		11/18/24 17:07	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213290-1

Client Sample ID: 2022-13-F-A4-20241016-01

Date Collected: 10/16/24 13:55
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213290-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:22	1
Arsenic	**2.0**	**J**	5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:22	1
Barium	**730**		50	7.7	ug/L		10/21/24 14:00	10/23/24 20:19	10
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:22	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:22	1
Calcium	**41000**		1000	250	ug/L		10/21/24 14:00	10/22/24 18:22	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:22	1
Cobalt	**0.24**	**J**	1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:22	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:22	1
Lithium	**48**		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:22	1
Magnesium	**10000**		1000	61	ug/L		10/21/24 14:00	10/22/24 18:22	1
Molybdenum	**46**		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:22	1
Potassium	**4100**		1000	220	ug/L		10/21/24 14:00	10/22/24 18:22	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:22	1
Sodium	**1900000**		10000	8800	ug/L		10/21/24 14:00	10/23/24 20:19	10
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**170**	**B**	5.0	2.6	mg/L			10/23/24 18:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**170**	**B**	5.0	2.6	mg/L			10/23/24 18:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:47	1
Fluoride (EPA 300.0-1993 R2.1)	**1.3**		0.25	0.12	mg/L			10/31/24 08:06	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.868**		0.231	0.244	1.00	0.207	pCi/L	10/23/24 08:27	11/14/24 20:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.860**		0.430	0.438	1.00	0.600	pCi/L	10/23/24 08:31	11/11/24 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*
Y Carrier	*82.2*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-13-F-A4-20241016-01
Lab Sample ID: 240-213290-2
Date Collected: 10/16/24 13:55
Matrix: Water
Date Received: 10/18/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.73		0.488	0.501	5.00	0.600	pCi/L		11/18/24 17:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213290-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
240-213290-1	2022-12-F-A4-20241016-01	86.6							
240-213290-2	2022-13-F-A4-20241016-01	84.8							
LCS 160-684722/2-A	Lab Control Sample	88.5							
MB 160-684722/1-A	Method Blank	90.2							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
240-213290-1	2022-12-F-A4-20241016-01	86.6	84.5						
240-213290-2	2022-13-F-A4-20241016-01	84.8	82.2						
LCS 160-684723/2-A	Lab Control Sample	88.5	84.5						
MB 160-684723/1-A	Method Blank	90.2	82.6						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631637/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 17:23	1
Arsenic	ND		5.0	0.75	ug/L		10/21/24 14:00	10/22/24 17:23	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 17:23	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 17:23	1
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 17:23	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 17:23	1
Cobalt	ND		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 17:23	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 17:23	1
Lithium	ND		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 17:23	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 17:23	1
Molybdenum	ND		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 17:23	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 17:23	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 17:23	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 17:23	1

Lab Sample ID: MB 240-631637/1-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		5.0	0.77	ug/L		10/21/24 14:00	10/23/24 19:53	1
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 19:53	1

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.6		ug/L		99	80 - 120
Arsenic	1000	941		ug/L		94	80 - 120
Beryllium	500	478		ug/L		96	80 - 120
Cadmium	500	478		ug/L		96	80 - 120
Calcium	25000	25800		ug/L		103	80 - 120
Chromium	500	493		ug/L		99	80 - 120
Cobalt	500	477		ug/L		95	80 - 120
Lead	500	482		ug/L		96	80 - 120
Lithium	500	503		ug/L		101	80 - 120
Magnesium	25000	24800		ug/L		99	80 - 120
Molybdenum	500	485		ug/L		97	80 - 120
Potassium	25000	25600		ug/L		102	80 - 120
Selenium	1000	929		ug/L		93	80 - 120
Thallium	1000	1160		ug/L		116	80 - 120

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	1000	983		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	25300		ug/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-631639/1-A
Matrix: Water
Analysis Batch: 631951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 631639

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 11:56	1

Lab Sample ID: LCS 240-631639/2-A
Matrix: Water
Analysis Batch: 631951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 631639

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.48		ug/L		90	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/30
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1

Lab Sample ID: MB 240-632240/56
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Bicarbonate Alkalinity as CaCO3	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 18:06	1

Lab Sample ID: LCS 240-632240/55
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	265		mg/L		95	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-633041/3
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			10/31/24 05:33	1

Lab Sample ID: LCS 240-633041/4
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.58		mg/L		103	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-684722/1-A
Matrix: Water
Analysis Batch: 688562

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684722

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06039	U	0.0973	0.0974	1.00	0.169	pCi/L	10/23/24 08:27	11/14/24 20:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:31*	*1*

Lab Sample ID: LCS 160-684722/2-A
Matrix: Water
Analysis Batch: 688561

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684722

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	8.509		0.986	1.00	0.161	pCi/L	89	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-684723/1-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684723

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5559		0.359	0.362	1.00	0.529	pCi/L	10/23/24 08:31	11/11/24 11:58	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*10/23/24 08:31*	*11/11/24 11:58*	*1*
Y Carrier	*82.6*		*30 - 110*	*10/23/24 08:31*	*11/11/24 11:58*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-684723/2-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684723

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.35	8.564		1.21	1.00	0.473	pCi/L	103	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*30 - 110*
Y Carrier	*84.5*		*30 - 110*

Metals

Prep Batch: 631637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total Recoverable	Water	3005A	
240-213290-2	2022-13-F-A4-20241016-01	Total Recoverable	Water	3005A	
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 631639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total/NA	Water	7470A	
240-213290-2	2022-13-F-A4-20241016-01	Total/NA	Water	7470A	
MB 240-631639/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-631639/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 631951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total/NA	Water	7470A	631639
240-213290-2	2022-13-F-A4-20241016-01	Total/NA	Water	7470A	631639
MB 240-631639/1-A	Method Blank	Total/NA	Water	7470A	631639
LCS 240-631639/2-A	Lab Control Sample	Total/NA	Water	7470A	631639

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total Recoverable	Water	6020B	631637
240-213290-2	2022-13-F-A4-20241016-01	Total Recoverable	Water	6020B	631637
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	6020B	631637
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	6020B	631637

Analysis Batch: 632139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total Recoverable	Water	6020B	631637
240-213290-2	2022-13-F-A4-20241016-01	Total Recoverable	Water	6020B	631637
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	6020B	631637
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	6020B	631637

General Chemistry

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total/NA	Water	2320B-1997	
240-213290-2	2022-13-F-A4-20241016-01	Total/NA	Water	2320B-1997	
MB 240-632240/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 633041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total/NA	Water	300.0-1993 R2.1	
240-213290-2	2022-13-F-A4-20241016-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-633041/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-633041/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Rad

Prep Batch: 684722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total/NA	Water	PrecSep-21	
240-213290-2	2022-13-F-A4-20241016-01	Total/NA	Water	PrecSep-21	
MB 160-684722/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-684722/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 684723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213290-1	2022-12-F-A4-20241016-01	Total/NA	Water	PrecSep_0	
240-213290-2	2022-13-F-A4-20241016-01	Total/NA	Water	PrecSep_0	
MB 160-684723/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-684723/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-12-F-A4-20241016-01
Lab Sample ID: 240-213290-1

Date Collected: 10/16/24 12:10
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:19
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	632139	AJC	EET CLE	10/23/24 20:16
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:28
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:42
Total/NA	Analysis	300.0-1993 R2.1		1	633041	JMR	EET CLE	10/31/24 07:49
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688561	SCB	EET SL	11/14/24 20:41
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Client Sample ID: 2022-13-F-A4-20241016-01
Lab Sample ID: 240-213290-2

Date Collected: 10/16/24 13:55
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:22
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		10	632139	AJC	EET CLE	10/23/24 20:19
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:30
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:47
Total/NA	Analysis	300.0-1993 R2.1		5	633041	JMR	EET CLE	10/31/24 08:06
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688561	SCB	EET SL	11/14/24 20:41
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213290-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

2.4/25

Chain of Custody Record

Columbus
209

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Client Information	Sampler: Bobby Caste	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-12-F-A4-2024/1016-01	10-16-24	1210	G	Water	N		1	1	1	2		
2022-13-F-A4-2024 1016-01	10-16-24	1355	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-213290 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Bobby Caste	10-17-24/0930	KEMRON	Ashley Deal	10.17.24 1:15	ETA
Relinquished by: Ashley Deal	10.17.24 1700	ETA	JJ	10/18/24 8:00	Eurs
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

11/19/2024

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Site Name _____ Cooler unpacked by: JF

Cooler Received on 10/18/24 Opened on 10/18/24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 5E Foam Box Client Cooler Box Other _____

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes) No	**Tests that are not checked for pH by Receiving:**
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA	**VOAs**
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	**Oil and Grease**
-Were tamper/custody seals intact and uncompromised?	Yes No (NA)	**TOC**
3 Shippers' packing slip attached to the cooler(s)?	Yes (No)	
4. Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA	pH Strip Lot# HC447997
14 Were VOAs on the COC?	Yes (No)	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes No (NA)	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)	
17 Was a LL Hg or Me Hg trip blank present? _____	Yes (No)	

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen _____

10/18/2024

Login Container Summary Report

240-213290

11/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-12-F-A4-20241016-01	240-213290-A-1	Plastic 250ml - unpreserved				
2022-12-F-A4-20241016-01	240-213290-B-1	Plastic 500ml - unpreserved				
2022-12-F-A4-20241016-01	240-213290-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-12-F-A4-20241016-01	240-213290-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-12-F-A4-20241016-01	240-213290-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4-20241016-01	240-213290-A-2	Plastic 250ml - unpreserved				
2022-13-F-A4-20241016-01	240-213290-B-2	Plastic 500ml - unpreserved				
2022-13-F-A4-20241016-01	240-213290-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-13-F-A4-20241016-01	240-213290-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-13-F-A4-20241016-01	240-213290-E-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-192366.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-213290-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/19/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-12-F-A4-20241016-01 (240-213290-1)	10/16/24	12:10 Eastern	G	Water			X	X	X	2	
2022-13-F-A4-20241016-01 (240-213290-2)	10/16/24	13:55 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: MALISSA LOAR	Date/Time: 10-18-24	Company	Received by:	Date/Time: 0900 OCT 21 2024	Company EEA-SL
Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

11/19/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-213290-1

Login Number: 213290
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/21/24 01:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 11/19/2024 11:23:47 AM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-213291-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/19/2024 11:23:47 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213291-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Job Narrative
240-213291-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 10/18/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5°C, 3.5°C and 4.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 prep batch 160-684722

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20241014-01 (240-213291-1), 9631-F-A4-20241014-01 (240-213291-1[MS]) and 9631-F-A4-20241014-01 (240-213291-1[MSD]). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9315_Ra226: Radium-226 prep batch 160-684722:

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 160-684722 and analytical batch 160-688561 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. 9631-F-A4-20241014-01 (240-213291-1[MS]) and 9631-F-A4-20241014-01 (240-213291-1[MSD])

Method 9315_Ra226: Radium-226 prep batch 160-684722:

The following samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. Samples with significant salt-like compounds had a native correction applied. The high concentrations of salt-like compounds can interfere with the barium sulfate recovery. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance.The data have been qualified and reported. 9631-F-A4-20241014-01 (240-213291-1), 9631-F-A4-20241014-01 (240-213291-1[MS]) and 9631-F-A4-20241014-01 (240-213291-1[MSD])

Method 9320_Ra228: Radium 228 prep batch 160-684723

The barium carrier recovery is outside the upper control limit (110%) for the following samples: 9631-F-A4-20241014-01 (240-213291-1), 9631-F-A4-20241014-01 (240-213291-1[MS]) and 9631-F-A4-20241014-01 (240-213291-1[MSD]). There was physical evidence of matrix interference apparent during the initial preparation of the sample. The QC samples associated with the batch have acceptable carrier recovery indicating the presence of matrix interference.

Method 9320_Ra228: Radium-228 Prep Batch 160-684723:
The barium carrier recovery (204%, 190%, 198%) is outside the upper control limit (110%) for the following samples: 9631-F-A4-20241014-01 (240-213291-1), 9631-F-A4-20241014-01 (240-213291-1[MS]) and 9631-F-A4-20241014-01 (240-213291-1[MSD]). Affected samples have a barium correction applied, however, there is significant concentrations of salt-like compounds (i.e. calcium, magnesium, and sodium) that can interfere with a barium sulfate recovery. The LCS (laboratory control

Job ID: 240-213291-1 (Continued) Eurofins Cleveland

sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The samples have been truncated to 100% to reduce any potential bias a high carrier recovery may have. The data have been qualified and reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213291-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213291-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213291-1	9631-F-A4-20241014-01	Water	10/14/24 13:30	10/18/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213291-1

Client Sample ID: 9631-F-A4-20241014-01

Lab Sample ID: 240-213291-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.64	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	2.8	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	39000		250	39	ug/L	50		6020B	Total Recoverable
Cadmium	0.20	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	1800000		50000	13000	ug/L	50		6020B	Total Recoverable
Chromium	2.0	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	4.2		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	360		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	480000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	4.8	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	25000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	1.6	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	14000000		50000	44000	ug/L	50		6020B	Total Recoverable
Thallium	0.52	J	1.0	0.51	ug/L	1		6020B	Total Recoverable
Total Alkalinity	82	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	82	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213291-1

Client Sample ID: 9631-F-A4-20241014-01

Date Collected: 10/14/24 13:30
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213291-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.64	J	2.0	0.57	ug/L		10/21/24 14:00	10/22/24 17:28	1
Arsenic	2.8	J	5.0	0.75	ug/L		10/21/24 14:00	10/22/24 17:28	1
Barium	39000		250	39	ug/L		10/21/24 14:00	10/23/24 19:58	50
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 17:28	1
Cadmium	0.20	J	1.0	0.077	ug/L		10/21/24 14:00	10/22/24 17:28	1
Calcium	1800000		50000	13000	ug/L		10/21/24 14:00	10/23/24 19:58	50
Chromium	2.0	J	5.0	1.2	ug/L		10/21/24 14:00	10/22/24 17:28	1
Cobalt	4.2		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 17:28	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 17:28	1
Lithium	360		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 17:28	1
Magnesium	480000		1000	61	ug/L		10/21/24 14:00	10/22/24 17:28	1
Molybdenum	4.8	J	5.0	1.1	ug/L		10/21/24 14:00	10/22/24 17:28	1
Potassium	25000		1000	220	ug/L		10/21/24 14:00	10/22/24 17:28	1
Selenium	1.6	J	5.0	0.89	ug/L		10/21/24 14:00	10/22/24 17:28	1
Sodium	14000000		50000	44000	ug/L		10/21/24 14:00	10/23/24 19:58	50
Thallium	0.52	J	1.0	0.51	ug/L		10/21/24 14:00	10/22/24 17:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.20	0.13	ug/L		10/21/24 14:00	10/22/24 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	82	B	5.0	2.6	mg/L			10/23/24 19:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	82	B	5.0	2.6	mg/L			10/23/24 19:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 19:14	1
Fluoride (EPA 300.0-1993 R2.1)	ND		5.0	2.4	mg/L			10/30/24 15:57	100

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	28.7		1.18	2.84	1.00	0.165	pCi/L	10/23/24 08:27	11/14/24 20:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*204*	*X*	*30 - 110*	*10/23/24 08:27*	*11/14/24 20:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	65.5		2.33	6.46	1.00	0.560	pCi/L	10/23/24 08:31	11/11/24 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*204*	*X*	*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*
Y Carrier	*82.6*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213291-1

Client Sample ID: 9631-F-A4-20241014-01
Date Collected: 10/14/24 13:30
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213291-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	94.1		2.61	7.06	5.00	0.560	pCi/L		11/18/24 17:07	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213291-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-213291-1	9631-F-A4-20241014-01	204 X
240-213291-1 MS	9631-F-A4-20241014-01	190 X
240-213291-1 MSD	9631-F-A4-20241014-01	198 X
LCS 160-684722/2-A	Lab Control Sample	88.5
MB 160-684722/1-A	Method Blank	90.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-213291-1	9631-F-A4-20241014-01	204 X	82.6
240-213291-1 MS	9631-F-A4-20241014-01	190 X	82.2
240-213291-1 MSD	9631-F-A4-20241014-01	198 X	74.8
LCS 160-684723/2-A	Lab Control Sample	88.5	84.5
MB 160-684723/1-A	Method Blank	90.2	82.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631637/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 17:23	1
Arsenic	ND		5.0	0.75	ug/L		10/21/24 14:00	10/22/24 17:23	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 17:23	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 17:23	1
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 17:23	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 17:23	1
Cobalt	ND		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 17:23	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 17:23	1
Lithium	ND		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 17:23	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 17:23	1
Molybdenum	ND		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 17:23	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 17:23	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 17:23	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 17:23	1

Lab Sample ID: MB 240-631637/1-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		5.0	0.77	ug/L		10/21/24 14:00	10/23/24 19:53	1
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 19:53	1

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.6		ug/L		99	80 - 120
Arsenic	1000	941		ug/L		94	80 - 120
Beryllium	500	478		ug/L		96	80 - 120
Cadmium	500	478		ug/L		96	80 - 120
Calcium	25000	25800		ug/L		103	80 - 120
Chromium	500	493		ug/L		99	80 - 120
Cobalt	500	477		ug/L		95	80 - 120
Lead	500	482		ug/L		96	80 - 120
Lithium	500	503		ug/L		101	80 - 120
Magnesium	25000	24800		ug/L		99	80 - 120
Molybdenum	500	485		ug/L		97	80 - 120
Potassium	25000	25600		ug/L		102	80 - 120
Selenium	1000	929		ug/L		93	80 - 120
Thallium	1000	1160		ug/L		116	80 - 120

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	1000	983		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sodium			25000	25300		ug/L		101	80 - 120		

Lab Sample ID: 240-213291-1 MS
Matrix: Water
Analysis Batch: 631977

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony	0.64	J	100	96.4		ug/L		96	80 - 120		
Arsenic	2.8	J	1000	1150		ug/L		115	80 - 120		
Beryllium	ND		500	476		ug/L		95	80 - 120		
Cadmium	0.20	J	500	429		ug/L		86	80 - 120		
Chromium	2.0	J	500	454		ug/L		90	80 - 120		
Cobalt	4.2		500	576		ug/L		114	80 - 120		
Lead	ND		500	417		ug/L		83	80 - 120		
Lithium	360		500	862		ug/L		101	80 - 120		
Magnesium	480000		25000	502000	4	ug/L		101	80 - 120		
Molybdenum	4.8	J	500	582		ug/L		115	80 - 120		
Potassium	25000		25000	51000		ug/L		105	80 - 120		
Selenium	1.6	J	1000	1020		ug/L		102	80 - 120		
Thallium	0.52	J	1000	862		ug/L		86	80 - 120		

Lab Sample ID: 240-213291-1 MS
Matrix: Water
Analysis Batch: 632139

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Barium	39000		1000	46800	4	ug/L		804	80 - 120		
Calcium	1800000		25000	2100000	4	ug/L		1367	80 - 120		
Sodium	14000000		25000	16400000	4	ug/L		10050	80 - 120		

Lab Sample ID: 240-213291-1 MSD
Matrix: Water
Analysis Batch: 631977

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.64	J	100	97.4		ug/L		97	80 - 120	1	20
Arsenic	2.8	J	1000	1160		ug/L		116	80 - 120	0	20
Beryllium	ND		500	474		ug/L		95	80 - 120	0	20
Cadmium	0.20	J	500	427		ug/L		85	80 - 120	0	20
Chromium	2.0	J	500	451		ug/L		90	80 - 120	1	20
Cobalt	4.2		500	575		ug/L		114	80 - 120	0	20
Lead	ND		500	413		ug/L		83	80 - 120	1	20
Lithium	360		500	853		ug/L		99	80 - 120	1	20
Magnesium	480000		25000	493000	4	ug/L		66	80 - 120	2	20
Molybdenum	4.8	J	500	584		ug/L		116	80 - 120	0	20
Potassium	25000		25000	50500		ug/L		103	80 - 120	1	20
Selenium	1.6	J	1000	1040		ug/L		103	80 - 120	2	20
Thallium	0.52	J	1000	862		ug/L		86	80 - 120	0	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 240-213291-1 MSD — **Client Sample ID: 9631-F-A4-20241014-01**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 632139 — **Prep Batch: 631637**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	39000		1000	41300	4	ug/L		254	80 - 120	12	20
Calcium	1800000		25000	1870000	4	ug/L		422	80 - 120	12	20
Sodium	14000000		25000	14600000	4	ug/L		2658	80 - 120	12	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-631639/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 631951 — **Prep Batch: 631639**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 11:56	1

Lab Sample ID: LCS 240-631639/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 631951 — **Prep Batch: 631639**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.48		ug/L		90	80 - 120

Lab Sample ID: 240-213291-1 MS — **Client Sample ID: 9631-F-A4-20241014-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 631951 — **Prep Batch: 631639**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND	F1	1.00	0.732	F1	ug/L		73	80 - 120

Lab Sample ID: 240-213291-1 MSD — **Client Sample ID: 9631-F-A4-20241014-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 631951 — **Prep Batch: 631639**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	1.00	0.748	F1	ug/L		75	80 - 120	2	20

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/30 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 632240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-632240/56
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Bicarbonate Alkalinity as CaCO3	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 18:06	1

Lab Sample ID: LCS 240-632240/55
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	265		mg/L		95	86 - 123

Lab Sample ID: 240-213291-1 DU
Matrix: Water
Analysis Batch: 632240

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity	82	B	79.8		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	82	B	79.8		mg/L		2	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-633038/3
Matrix: Water
Analysis Batch: 633038

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			10/30/24 09:59	1

Lab Sample ID: LCS 240-633038/4
Matrix: Water
Analysis Batch: 633038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.56		mg/L		102	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-684722/1-A
Matrix: Water
Analysis Batch: 688562

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684722

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06039	U	0.0973	0.0974	1.00	0.169	pCi/L	10/23/24 08:27	11/14/24 20:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:31*	*1*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-684722/2-A
Matrix: Water
Analysis Batch: 688561

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684722

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.509		0.986	1.00	0.161	pCi/L	89	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*30 - 110*

Lab Sample ID: 240-213291-1 MS
Matrix: Water
Analysis Batch: 688561

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total/NA
Prep Batch: 684722

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	28.7		9.51	28.95	F1	2.87	1.00	0.196	pCi/L	3	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*190*	*X*	*30 - 110*

Lab Sample ID: 240-213291-1 MSD
Matrix: Water
Analysis Batch: 688561

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total/NA
Prep Batch: 684722

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	28.7		9.62	30.05	F1	2.97	1.00	0.166	pCi/L	14	60 - 140	0.19	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*198*	*X*	*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-684723/1-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684723

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5559		0.359	0.362	1.00	0.529	pCi/L	10/23/24 08:31	11/11/24 11:58	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*10/23/24 08:31*	*11/11/24 11:58*	*1*
Y Carrier	*82.6*		*30 - 110*	*10/23/24 08:31*	*11/11/24 11:58*	*1*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-684723/2-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684723

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.35	8.564		1.21	1.00	0.473	pCi/L	103	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*30 - 110*
Y Carrier	*84.5*		*30 - 110*

Lab Sample ID: 240-213291-1 MS
Matrix: Water
Analysis Batch: 687867

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total/NA
Prep Batch: 684723

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	65.5		8.29	75.20		7.35	1.00	0.506	pCi/L	117	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*190*	*X*	*30 - 110*
Y Carrier	*82.2*		*30 - 110*

Lab Sample ID: 240-213291-1 MSD
Matrix: Water
Analysis Batch: 687867

Client Sample ID: 9631-F-A4-20241014-01
Prep Type: Total/NA
Prep Batch: 684723

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	65.5		8.39	71.85		7.09	1.00	0.491	pCi/L	76	60 - 140	0.23	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*198*	*X*	*30 - 110*
Y Carrier	*74.8*		*30 - 110*

Metals

Prep Batch: 631637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total Recoverable	Water	3005A	
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-213291-1 MS	9631-F-A4-20241014-01	Total Recoverable	Water	3005A	
240-213291-1 MSD	9631-F-A4-20241014-01	Total Recoverable	Water	3005A	

Prep Batch: 631639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total/NA	Water	7470A	
MB 240-631639/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-631639/2-A	Lab Control Sample	Total/NA	Water	7470A	
240-213291-1 MS	9631-F-A4-20241014-01	Total/NA	Water	7470A	
240-213291-1 MSD	9631-F-A4-20241014-01	Total/NA	Water	7470A	

Analysis Batch: 631951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total/NA	Water	7470A	631639
MB 240-631639/1-A	Method Blank	Total/NA	Water	7470A	631639
LCS 240-631639/2-A	Lab Control Sample	Total/NA	Water	7470A	631639
240-213291-1 MS	9631-F-A4-20241014-01	Total/NA	Water	7470A	631639
240-213291-1 MSD	9631-F-A4-20241014-01	Total/NA	Water	7470A	631639

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total Recoverable	Water	6020B	631637
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	6020B	631637
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	6020B	631637
240-213291-1 MS	9631-F-A4-20241014-01	Total Recoverable	Water	6020B	631637
240-213291-1 MSD	9631-F-A4-20241014-01	Total Recoverable	Water	6020B	631637

Analysis Batch: 632139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total Recoverable	Water	6020B	631637
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	6020B	631637
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	6020B	631637
240-213291-1 MS	9631-F-A4-20241014-01	Total Recoverable	Water	6020B	631637
240-213291-1 MSD	9631-F-A4-20241014-01	Total Recoverable	Water	6020B	631637

General Chemistry

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total/NA	Water	2320B-1997	
MB 240-632240/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/55	Lab Control Sample	Total/NA	Water	2320B-1997	
240-213291-1 DU	9631-F-A4-20241014-01	Total/NA	Water	2320B-1997	

Analysis Batch: 633038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total/NA	Water	300.0-1993 R2.1	

General Chemistry (Continued)

Analysis Batch: 633038 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-633038/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-633038/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 684722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total/NA	Water	PrecSep-21	
MB 160-684722/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-684722/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-213291-1 MS	9631-F-A4-20241014-01	Total/NA	Water	PrecSep-21	
240-213291-1 MSD	9631-F-A4-20241014-01	Total/NA	Water	PrecSep-21	

Prep Batch: 684723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213291-1	9631-F-A4-20241014-01	Total/NA	Water	PrecSep_0	
MB 160-684723/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-684723/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-213291-1 MS	9631-F-A4-20241014-01	Total/NA	Water	PrecSep_0	
240-213291-1 MSD	9631-F-A4-20241014-01	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213291-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 9631-F-A4-20241014-01
Lab Sample ID: 240-213291-1
Date Collected: 10/14/24 13:30
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 17:28
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		50	632139	AJC	EET CLE	10/23/24 19:58
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 11:59
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 19:14
Total/NA	Analysis	300.0-1993 R2.1		100	633038	JMR	EET CLE	10/30/24 15:57
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688561	SCB	EET SL	11/14/24 20:41
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213291-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213291-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
Preservation Code:							D	N	N	D		
9631-F-A4-20241014-01	10-14-24	1330	6	Water	N		1	1	1	2		
9631-F-A4-20241014-MS-01	10-14-24	1330	6	Water	N	Y	1	1	1	2		
9631-F-A4-20241014-MSD-01	10-14-24	1330	6	Water	N	Y	1	1	1	2		
				Water								
				Water								

240-213291 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Bobby Casto	10-17-24 / 0930	KEMRON	Ashley Deal	10/17/24 1:15	ETA
Relinquished by: Ashley Deal	10.17.24 1700	ETA		10/18/24 8:00	
Relinquished by:			Received by:		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :**
Barberton Facility

Client Lightstore Site Name

Cooler unpacked by: JF

Cooler Received on 10/18/24 Opened on 10/18/24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EE Foam Box Client Cooler Box Other

Packing material used. Bubble Wrap Foam (Plastic Bag) None Other

COOLANT (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # (CF °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	Yes	No (NA)
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No (NA)
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present?	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.

Sample(s) were received in a broken container

Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory

Time preserved. Preservative(s) added/Lot number(s)

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 18	4.7	4.4	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 17	2.4	2.5	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	3.8	3.5	(Wet Ice) Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____			Wet Ice

10/18/2024

Login Container Summary Report

240-213291

11/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
9631-F-A4-20241014-01	240-213291-A-1	Plastic 250ml - unpreserved				
9631-F-A4-20241014-MS-01	240-213291-A-1 MS	Plastic 250ml - unpreserved				
9631-F-A4-20241014-MSD-01	240-213291-A-1 MSD	Plastic 250ml - unpreserved				
9631-F-A4-20241014-01	240-213291-B-1	Plastic 500ml - unpreserved				
9631-F-A4-20241014-MS-01	240-213291-B-1 MS	Plastic 500ml - unpreserved				
9631-F-A4-20241014-MSD-01	240-213291-B-1 MSD	Plastic 500ml - unpreserved				
9631-F-A4-20241014-01	240-213291-C-1	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20241014-MS-01	240-213291-C-1 MS	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20241014-MSD-01	240-213291-C-1 MSD	Plastic 500ml - with Nitric Acid	<2			
9631-F-A4-20241014-01	240-213291-D-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20241014-MS-01	240-213291-D-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20241014-MSD-01	240-213291-D-1 MSD	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20241014-01	240-213291-E-1	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20241014-MS-01	240-213291-E-1 MS	Plastic 1 liter - Nitric Acid	<2			
9631-F-A4-20241014-MSD-01	240-213291-E-1 MSD	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-192366.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-213291-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/19/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
9631-F-A4-20241014-01 (240-213291-1)	10/14/24	13:30 Eastern	G	Water				X	X	X	2	
9631-F-A4-20241014-01 (240-213291-1MS)	10/14/24	13:30 Eastern	G	Water				X	X		2	
9631-F-A4-20241014-01 (240-213291-1MSD)	10/14/24	13:30 Eastern	G	Water				X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: MALISSA LOAR	Date/Time: 10 18 24	Company	Received by:	Date/Time: 0900 10/21/24	Company ETA-STL
Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks.

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-213291-1

Login Number: 213291
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/21/24 01:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 11/19/2024 11:24:42 AM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-213292-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/19/2024 11:24:42 AM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213292-1 — Eurofins Cleveland

Job Narrative
240-213292-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5°C, 3.5°C and 4.4°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213292-1	2022-05-F-A4-20241015-01	Water	10/15/24 12:55	10/18/24 08:00
240-213292-2	DUP-001-F-A4-20241015-01	Water	10/15/24 00:00	10/18/24 08:00
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Water	10/15/24 14:40	10/18/24 08:00
240-213292-4	EB-001-F-A4-20241015-01	Water	10/15/24 14:45	10/18/24 08:00
240-213292-5	2022-04-F-A4-20241016-01	Water	10/16/24 10:35	10/18/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: 2022-05-F-A4-20241015-01 — Lab Sample ID: 240-213292-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	1600		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	62000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.69	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	65		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	18000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	40		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	5100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2200000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	230	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: DUP-001-F-A4-20241015-01 — Lab Sample ID: 240-213292-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	3.7	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	1500		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	58000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.69	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	63		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	17000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	41		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4900		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	2200000		50000	44000	ug/L	50		6020B	Total Recoverable
Total Alkalinity	240	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	240	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	1.3		0.25	0.12	mg/L	5		300.0-1993 R2.1	Total/NA

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01 — Lab Sample ID: 240-213292-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	2000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	3.8	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.8	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: EB-001-F-A4-20241015-01 — Lab Sample ID: 240-213292-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	1200		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	3.6	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	3.6	J B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: 2022-04-F-A4-20241016-01 — Lab Sample ID: 240-213292-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.86	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	94		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	110000		1000	250	ug/L	1		6020B	Total Recoverable
Cobalt	0.34	J	1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	25		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	35000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	1.8	J	5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	4100		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	95000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	490	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	490	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.11		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: 2022-05-F-A4-20241015-01

Date Collected: 10/15/24 12:55
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:24	1
Arsenic	**4.2**	**J**	5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:24	1
Barium	**1600**		5.0	0.77	ug/L		10/21/24 14:00	10/22/24 18:24	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:24	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:24	1
Calcium	**62000**		1000	250	ug/L		10/21/24 14:00	10/22/24 18:24	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:24	1
Cobalt	**0.69**	**J**	1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:24	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:24	1
Lithium	**65**		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:24	1
Magnesium	**18000**		1000	61	ug/L		10/21/24 14:00	10/22/24 18:24	1
Molybdenum	**40**		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:24	1
Potassium	**5100**		1000	220	ug/L		10/21/24 14:00	10/22/24 18:24	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:24	1
Sodium	**2200000**		50000	44000	ug/L		10/21/24 14:00	10/23/24 20:22	50
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**230**	**B**	5.0	2.6	mg/L			10/23/24 18:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**230**	**B**	5.0	2.6	mg/L			10/23/24 18:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:52	1
Fluoride (EPA 300.0-1993 R2.1)	**1.3**		0.25	0.12	mg/L			10/30/24 20:29	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.45**		0.250	0.282	1.00	0.152	pCi/L	10/23/24 08:27	11/14/24 20:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.51**		0.417	0.440	1.00	0.446	pCi/L	10/23/24 08:31	11/11/24 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*
Y Carrier	*83.4*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: 2022-05-F-A4-20241015-01
Date Collected: 10/15/24 12:55
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.96		0.486	0.523	5.00	0.446	pCi/L		11/18/24 17:07	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: DUP-001-F-A4-20241015-01

Date Collected: 10/15/24 00:00
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:27	1
Arsenic	**3.7**	**J**	5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:27	1
Barium	**1500**		5.0	0.77	ug/L		10/21/24 14:00	10/22/24 18:27	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:27	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:27	1
Calcium	**58000**		1000	250	ug/L		10/21/24 14:00	10/22/24 18:27	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:27	1
Cobalt	**0.69**	**J**	1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:27	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:27	1
Lithium	**63**		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:27	1
Magnesium	**17000**		1000	61	ug/L		10/21/24 14:00	10/22/24 18:27	1
Molybdenum	**41**		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:27	1
Potassium	**4900**		1000	220	ug/L		10/21/24 14:00	10/22/24 18:27	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:27	1
Sodium	**2200000**		50000	44000	ug/L		10/21/24 14:00	10/23/24 20:24	50
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**240**	**B**	5.0	2.6	mg/L			10/23/24 18:58	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**240**	**B**	5.0	2.6	mg/L			10/23/24 18:58	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 18:58	1
Fluoride (EPA 300.0-1993 R2.1)	**1.3**		0.25	0.12	mg/L			10/30/24 20:46	5

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.40**		0.275	0.302	1.00	0.206	pCi/L	10/23/24 08:27	11/14/24 20:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:41*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.70**		0.542	0.564	1.00	0.633	pCi/L	10/23/24 08:31	11/11/24 12:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.0*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*
Y Carrier	*69.2*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:00*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: DUP-001-F-A4-20241015-01
Lab Sample ID: 240-213292-2
Date Collected: 10/15/24 00:00
Matrix: Water
Date Received: 10/18/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.09		0.608	0.640	5.00	0.633	pCi/L		11/18/24 17:07	1

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01

Lab Sample ID: 240-213292-3

Date Collected: 10/15/24 14:40

Matrix: Water

Date Received: 10/18/24 08:00

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:30	1
Arsenic	ND		5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:30	1
Barium	ND		5.0	0.77	ug/L		10/21/24 14:00	10/22/24 18:30	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:30	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:30	1
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 18:30	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:30	1
Cobalt	ND		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:30	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:30	1
Lithium	ND		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:30	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 18:30	1
Molybdenum	ND		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:30	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 18:30	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:30	1
Sodium	**2000**		1000	880	ug/L		10/21/24 14:00	10/22/24 18:30	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**3.8**	**J B**	5.0	2.6	mg/L			10/23/24 19:06	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**3.8**	**J B**	5.0	2.6	mg/L			10/23/24 19:06	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 19:06	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			10/31/24 06:07	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0180	U	0.0799	0.0799	1.00	0.167	pCi/L	10/23/24 08:27	11/15/24 07:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*30 - 110*	*10/23/24 08:27*	*11/15/24 07:46*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.342	U	0.342	0.343	1.00	0.551	pCi/L	10/23/24 08:31	11/11/24 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.9*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:01*	*1*
Y Carrier	*80.7*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:01*	*1*

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01
Lab Sample ID: 240-213292-3
Date Collected: 10/15/24 14:40
Matrix: Water
Date Received: 10/18/24 08:00

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.324	U	0.351	0.352	5.00	0.551	pCi/L		11/18/24 17:07	1

Client Sample ID: EB-001-F-A4-20241015-01

Date Collected: 10/15/24 14:45
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-4

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:32	1
Arsenic	ND		5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:32	1
Barium	ND		5.0	0.77	ug/L		10/21/24 14:00	10/22/24 18:32	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:32	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:32	1
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 18:32	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:32	1
Cobalt	ND		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:32	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:32	1
Lithium	ND		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:32	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 18:32	1
Molybdenum	ND		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:32	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 18:32	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:32	1
Sodium	**1200**		1000	880	ug/L		10/21/24 14:00	10/22/24 18:32	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**3.6**	**J B**	5.0	2.6	mg/L			10/23/24 19:19	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**3.6**	**J B**	5.0	2.6	mg/L			10/23/24 19:19	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 19:19	1
Fluoride (EPA 300.0-1993 R2.1)	ND		0.050	0.024	mg/L			10/31/24 06:58	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.121	U	0.100	0.101	1.00	0.150	pCi/L	10/23/24 08:27	11/15/24 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*10/23/24 08:27*	*11/15/24 07:47*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0445	U	0.273	0.273	1.00	0.506	pCi/L	10/23/24 08:31	11/11/24 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:01*	*1*
Y Carrier	*74.4*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:01*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: EB-001-F-A4-20241015-01
Date Collected: 10/15/24 14:45
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-4
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.166	U	0.291	0.291	5.00	0.506	pCi/L		11/18/24 17:07	1

Client Sample ID: 2022-04-F-A4-20241016-01
Date Collected: 10/16/24 10:35
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-5
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 18:35	1
Arsenic	**0.86**	**J**	5.0	0.75	ug/L		10/21/24 14:00	10/22/24 18:35	1
Barium	**94**		5.0	0.77	ug/L		10/21/24 14:00	10/22/24 18:35	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 18:35	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 18:35	1
Calcium	**110000**		1000	250	ug/L		10/21/24 14:00	10/22/24 18:35	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 18:35	1
Cobalt	**0.34**	**J**	1.0	0.086	ug/L		10/21/24 14:00	10/22/24 18:35	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 18:35	1
Lithium	**25**		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 18:35	1
Magnesium	**35000**		1000	61	ug/L		10/21/24 14:00	10/22/24 18:35	1
Molybdenum	**1.8**	**J**	5.0	1.1	ug/L		10/21/24 14:00	10/22/24 18:35	1
Potassium	**4100**		1000	220	ug/L		10/21/24 14:00	10/22/24 18:35	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 18:35	1
Sodium	**95000**		1000	880	ug/L		10/21/24 14:00	10/22/24 18:35	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 18:35	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 12:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**490**	**B**	5.0	2.6	mg/L			10/23/24 19:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**490**	**B**	5.0	2.6	mg/L			10/23/24 19:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 19:23	1
Fluoride (EPA 300.0-1993 R2.1)	**0.11**		0.050	0.024	mg/L			10/31/24 08:57	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.305**		0.144	0.146	1.00	0.175	pCi/L	10/23/24 08:27	11/15/24 07:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.6*		*30 - 110*	*10/23/24 08:27*	*11/15/24 07:47*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.537	U	0.419	0.422	1.00	0.640	pCi/L	10/23/24 08:31	11/11/24 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.6*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:01*	*1*
Y Carrier	*69.2*		*30 - 110*	*10/23/24 08:31*	*11/11/24 12:01*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213292-1

Client Sample ID: 2022-04-F-A4-20241016-01
Date Collected: 10/16/24 10:35
Date Received: 10/18/24 08:00

Lab Sample ID: 240-213292-5
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.842		0.443	0.447	5.00	0.640	pCi/L		11/19/24 10:11	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-213292-1	2022-05-F-A4-20241015-01	103
240-213292-2	DUP-001-F-A4-20241015-01	91.0
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	94.9
240-213292-4	EB-001-F-A4-20241015-01	95.8
240-213292-5	2022-04-F-A4-20241016-01	83.6
LCS 160-684722/2-A	Lab Control Sample	88.5
MB 160-684722/1-A	Method Blank	90.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-213292-1	2022-05-F-A4-20241015-01	103	83.4
240-213292-2	DUP-001-F-A4-20241015-01	91.0	69.2
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	94.9	80.7
240-213292-4	EB-001-F-A4-20241015-01	95.8	74.4
240-213292-5	2022-04-F-A4-20241016-01	83.6	69.2
LCS 160-684723/2-A	Lab Control Sample	88.5	84.5
MB 160-684723/1-A	Method Blank	90.2	82.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-631637/1-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/21/24 14:00	10/22/24 17:23	1
Arsenic	ND		5.0	0.75	ug/L		10/21/24 14:00	10/22/24 17:23	1
Beryllium	ND		1.0	0.27	ug/L		10/21/24 14:00	10/22/24 17:23	1
Cadmium	ND		1.0	0.077	ug/L		10/21/24 14:00	10/22/24 17:23	1
Calcium	ND		1000	250	ug/L		10/21/24 14:00	10/22/24 17:23	1
Chromium	ND		5.0	1.2	ug/L		10/21/24 14:00	10/22/24 17:23	1
Cobalt	ND		1.0	0.086	ug/L		10/21/24 14:00	10/22/24 17:23	1
Lead	ND		1.0	0.45	ug/L		10/21/24 14:00	10/22/24 17:23	1
Lithium	ND		8.0	3.4	ug/L		10/21/24 14:00	10/22/24 17:23	1
Magnesium	ND		1000	61	ug/L		10/21/24 14:00	10/22/24 17:23	1
Molybdenum	ND		5.0	1.1	ug/L		10/21/24 14:00	10/22/24 17:23	1
Potassium	ND		1000	220	ug/L		10/21/24 14:00	10/22/24 17:23	1
Selenium	ND		5.0	0.89	ug/L		10/21/24 14:00	10/22/24 17:23	1
Thallium	ND		1.0	0.51	ug/L		10/21/24 14:00	10/22/24 17:23	1

Lab Sample ID: MB 240-631637/1-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		5.0	0.77	ug/L		10/21/24 14:00	10/23/24 19:53	1
Sodium	ND		1000	880	ug/L		10/21/24 14:00	10/23/24 19:53	1

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 631977

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.6		ug/L		99	80 - 120
Arsenic	1000	941		ug/L		94	80 - 120
Beryllium	500	478		ug/L		96	80 - 120
Cadmium	500	478		ug/L		96	80 - 120
Calcium	25000	25800		ug/L		103	80 - 120
Chromium	500	493		ug/L		99	80 - 120
Cobalt	500	477		ug/L		95	80 - 120
Lead	500	482		ug/L		96	80 - 120
Lithium	500	503		ug/L		101	80 - 120
Magnesium	25000	24800		ug/L		99	80 - 120
Molybdenum	500	485		ug/L		97	80 - 120
Potassium	25000	25600		ug/L		102	80 - 120
Selenium	1000	929		ug/L		93	80 - 120
Thallium	1000	1160		ug/L		116	80 - 120

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	1000	983		ug/L		98	80 - 120

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 240-631637/2-A
Matrix: Water
Analysis Batch: 632139

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 631637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sodium	25000	25300		ug/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-631639/1-A
Matrix: Water
Analysis Batch: 631951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 631639

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/21/24 14:00	10/22/24 11:56	1

Lab Sample ID: LCS 240-631639/2-A
Matrix: Water
Analysis Batch: 631951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 631639

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.48		ug/L		90	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/30
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 15:32	1

Lab Sample ID: MB 240-632240/56
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Bicarbonate Alkalinity as CaCO3	2.64	J	5.0	2.6	mg/L			10/23/24 18:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 18:06	1

Lab Sample ID: LCS 240-632240/55
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	265		mg/L		95	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-633038/3
Matrix: Water
Analysis Batch: 633038

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			10/30/24 09:59	1

Lab Sample ID: LCS 240-633038/4
Matrix: Water
Analysis Batch: 633038

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.56		mg/L		102	90 - 110		

Lab Sample ID: MB 240-633041/3
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			10/31/24 05:33	1

Lab Sample ID: LCS 240-633041/4
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride			2.50	2.58		mg/L		103	90 - 110		

Lab Sample ID: 240-213292-3 MS
Matrix: Water
Analysis Batch: 633041

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	ND		2.50	2.66		mg/L		106	80 - 120		

Lab Sample ID: 240-213292-3 MSD
Matrix: Water
Analysis Batch: 633041

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	ND		2.50	2.57		mg/L		103	80 - 120	3	15

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-684722/1-A
Matrix: Water
Analysis Batch: 688562

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684722

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06039	U	0.0973	0.0974	1.00	0.169	pCi/L	10/23/24 08:27	11/14/24 20:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*10/23/24 08:27*	*11/14/24 20:31*	*1*

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-684722/2-A
Matrix: Water
Analysis Batch: 688561

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684722

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.509		0.986	1.00	0.161	pCi/L	89	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-684723/1-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684723

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5559		0.359	0.362	1.00	0.529	pCi/L	10/23/24 08:31	11/11/24 11:58	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*30 - 110*	*10/23/24 08:31*	*11/11/24 11:58*	*1*
Y Carrier	*82.6*		*30 - 110*	*10/23/24 08:31*	*11/11/24 11:58*	*1*

Lab Sample ID: LCS 160-684723/2-A
Matrix: Water
Analysis Batch: 687867

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684723

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.35	8.564		1.21	1.00	0.473	pCi/L	103	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*30 - 110*
Y Carrier	*84.5*		*30 - 110*

Metals

Prep Batch: 631637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total Recoverable	Water	3005A	
240-213292-2	DUP-001-F-A4-20241015-01	Total Recoverable	Water	3005A	
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total Recoverable	Water	3005A	
240-213292-4	EB-001-F-A4-20241015-01	Total Recoverable	Water	3005A	
240-213292-5	2022-04-F-A4-20241016-01	Total Recoverable	Water	3005A	
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 631639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total/NA	Water	7470A	
240-213292-2	DUP-001-F-A4-20241015-01	Total/NA	Water	7470A	
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	7470A	
240-213292-4	EB-001-F-A4-20241015-01	Total/NA	Water	7470A	
240-213292-5	2022-04-F-A4-20241016-01	Total/NA	Water	7470A	
MB 240-631639/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-631639/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 631951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total/NA	Water	7470A	631639
240-213292-2	DUP-001-F-A4-20241015-01	Total/NA	Water	7470A	631639
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	7470A	631639
240-213292-4	EB-001-F-A4-20241015-01	Total/NA	Water	7470A	631639
240-213292-5	2022-04-F-A4-20241016-01	Total/NA	Water	7470A	631639
MB 240-631639/1-A	Method Blank	Total/NA	Water	7470A	631639
LCS 240-631639/2-A	Lab Control Sample	Total/NA	Water	7470A	631639

Analysis Batch: 631977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total Recoverable	Water	6020B	631637
240-213292-2	DUP-001-F-A4-20241015-01	Total Recoverable	Water	6020B	631637
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total Recoverable	Water	6020B	631637
240-213292-4	EB-001-F-A4-20241015-01	Total Recoverable	Water	6020B	631637
240-213292-5	2022-04-F-A4-20241016-01	Total Recoverable	Water	6020B	631637
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	6020B	631637
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	6020B	631637

Analysis Batch: 632139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total Recoverable	Water	6020B	631637
240-213292-2	DUP-001-F-A4-20241015-01	Total Recoverable	Water	6020B	631637
MB 240-631637/1-A	Method Blank	Total Recoverable	Water	6020B	631637
LCS 240-631637/2-A	Lab Control Sample	Total Recoverable	Water	6020B	631637

General Chemistry

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total/NA	Water	2320B-1997	
240-213292-2	DUP-001-F-A4-20241015-01	Total/NA	Water	2320B-1997	

General Chemistry (Continued)

Analysis Batch: 632240 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	2320B-1997	
240-213292-4	EB-001-F-A4-20241015-01	Total/NA	Water	2320B-1997	
240-213292-5	2022-04-F-A4-20241016-01	Total/NA	Water	2320B-1997	
MB 240-632240/30	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/56	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/55	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 633038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total/NA	Water	300.0-1993 R2.1	
240-213292-2	DUP-001-F-A4-20241015-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-633038/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-633038/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 633041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	300.0-1993 R2.1	
240-213292-4	EB-001-F-A4-20241015-01	Total/NA	Water	300.0-1993 R2.1	
240-213292-5	2022-04-F-A4-20241016-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-633041/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-633041/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
240-213292-3 MS	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	300.0-1993 R2.1	
240-213292-3 MSD	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 684722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total/NA	Water	PrecSep-21	
240-213292-2	DUP-001-F-A4-20241015-01	Total/NA	Water	PrecSep-21	
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	PrecSep-21	
240-213292-4	EB-001-F-A4-20241015-01	Total/NA	Water	PrecSep-21	
240-213292-5	2022-04-F-A4-20241016-01	Total/NA	Water	PrecSep-21	
MB 160-684722/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-684722/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 684723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213292-1	2022-05-F-A4-20241015-01	Total/NA	Water	PrecSep_0	
240-213292-2	DUP-001-F-A4-20241015-01	Total/NA	Water	PrecSep_0	
240-213292-3	FIELD BLANK-001-F-A4-20241015-01	Total/NA	Water	PrecSep_0	
240-213292-4	EB-001-F-A4-20241015-01	Total/NA	Water	PrecSep_0	
240-213292-5	2022-04-F-A4-20241016-01	Total/NA	Water	PrecSep_0	
MB 160-684723/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-684723/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Client Sample ID: 2022-05-F-A4-20241015-01
Lab Sample ID: 240-213292-1

Date Collected: 10/15/24 12:55
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:24
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		50	632139	AJC	EET CLE	10/23/24 20:22
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:32
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:52
Total/NA	Analysis	300.0-1993 R2.1		5	633038	JMR	EET CLE	10/30/24 20:29
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688561	SCB	EET SL	11/14/24 20:41
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Client Sample ID: DUP-001-F-A4-20241015-01
Lab Sample ID: 240-213292-2

Date Collected: 10/15/24 00:00
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:27
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		50	632139	AJC	EET CLE	10/23/24 20:24
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:34
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 18:58
Total/NA	Analysis	300.0-1993 R2.1		5	633038	JMR	EET CLE	10/30/24 20:46
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688561	SCB	EET SL	11/14/24 20:41
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:00
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01
Lab Sample ID: 240-213292-3

Date Collected: 10/15/24 14:40
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:30
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:35
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 19:06
Total/NA	Analysis	300.0-1993 R2.1		1	633041	JMR	EET CLE	10/31/24 06:07

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: FIELD BLANK-001-F-A4-20241015-01
Lab Sample ID: 240-213292-3

Date Collected: 10/15/24 14:40
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688683	SWS	EET SL	11/15/24 07:46
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Client Sample ID: EB-001-F-A4-20241015-01
Lab Sample ID: 240-213292-4

Date Collected: 10/15/24 14:45
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:32
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:37
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 19:19
Total/NA	Analysis	300.0-1993 R2.1		1	633041	JMR	EET CLE	10/31/24 06:58
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688683	SWS	EET SL	11/15/24 07:47
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/18/24 17:07

Client Sample ID: 2022-04-F-A4-20241016-01
Lab Sample ID: 240-213292-5

Date Collected: 10/16/24 10:35
Matrix: Water
Date Received: 10/18/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			631637	XWS6	EET CLE	10/21/24 14:00
Total Recoverable	Analysis	6020B		1	631977	AJC	EET CLE	10/22/24 18:35
Total/NA	Prep	7470A			631639	XWS6	EET CLE	10/21/24 14:00
Total/NA	Analysis	7470A		1	631951	S4FJ	EET CLE	10/22/24 12:39
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 19:23
Total/NA	Analysis	300.0-1993 R2.1		1	633041	JMR	EET CLE	10/31/24 08:57
Total/NA	Prep	PrecSep-21			684722	MLT	EET SL	10/23/24 08:27
Total/NA	Analysis	9315		1	688683	SWS	EET SL	11/15/24 07:47
Total/NA	Prep	PrecSep_0			684723	MLT	EET SL	10/23/24 08:31
Total/NA	Analysis	9320		1	687867	SWS	EET SL	11/11/24 12:01
Total/NA	Analysis	Ra226_Ra228		1	689248	SCB	EET SL	11/19/24 10:11

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213292-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

2.4/25

Chain of Custody Record

Columbus 209

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra226, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-05-F-A4-20241015-01	10-15-24	1255	G	Water	N		1	1	1	2		
Dup-001-F-A4-20241015-01	10-15-24	—	G	Water	N		1	1	1	2		
Field Blank-001-F-A4-20241015-01	10-15-24	1440	G	Water	N		1	1	1	2		
EB-001-F-A4-20241015-01	10-15-24	1445	G	Water	N		1	1	1	2		
2022-04-F-A4-20241016-01	10-16-24	1035	G	Water	N		1	1	1	2		

240-213292 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Casto	10-17-24/ 0930	Kemron	Ashley Deal	10/17/24 1:15	ETA
2	Ashley Deal	10.17.24 1700	ETA		10/18/24 8:00	Eurofins
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins = Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client L.Brinkstone Site Name _____ Cooler unpacked by: JT

Cooler Received on 10/18/24 Opened on 10/18/24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # _____ (CF _____ °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	Yes	No (NA)
3. Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No (NA)
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:

VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR GUN #: 18	4.7	4.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 17	2.4	2.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: 18	3.8	3.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
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EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

10/18/2024

Login Container Summary Report

240-213292

11/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-05-F-A4-20241015-01	240-213292-A-1	Plastic 250ml - unpreserved				
2022-05-F-A4-20241015-01	240-213292-B-1	Plastic 500ml - unpreserved				
2022-05-F-A4-20241015-01	240-213292-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-05-F-A4-20241015-01	240-213292-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-05-F-A4-20241015-01	240-213292-E-1	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20241015-01	240-213292-A-2	Plastic 250ml - unpreserved				
DUP-001-F-A4-20241015-01	240-213292-B-2	Plastic 500ml - unpreserved				
DUP-001-F-A4-20241015-01	240-213292-C-2	Plastic 500ml - with Nitric Acid	<2			
DUP-001-F-A4-20241015-01	240-213292-D-2	Plastic 1 liter - Nitric Acid	<2			
DUP-001-F-A4-20241015-01	240-213292-E-2	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001-F-A4-20241015-01	240-213292-A-3	Plastic 250ml - unpreserved				
FIELD BLANK-001-F-A4-20241015-01	240-213292-B-3	Plastic 500ml - unpreserved				
FIELD BLANK-001-F-A4-20241015-01	240-213292-C-3	Plastic 500ml - with Nitric Acid	<2			
FIELD BLANK-001-F-A4-20241015-01	240-213292-D-3	Plastic 1 liter - Nitric Acid	<2			
FIELD BLANK-001-F-A4-20241015-01	240-213292-E-3	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20241015-01	240-213292-A-4	Plastic 250ml - unpreserved				
EB-001-F-A4-20241015-01	240-213292-B-4	Plastic 500ml - unpreserved				
EB-001-F-A4-20241015-01	240-213292-C-4	Plastic 500ml - with Nitric Acid	<2			
EB-001-F-A4-20241015-01	240-213292-D-4	Plastic 1 liter - Nitric Acid	<2			
EB-001-F-A4-20241015-01	240-213292-E-4	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-A4-20241016-01	240-213292-A-5	Plastic 250ml - unpreserved				
2022-04-F-A4-20241016-01	240-213292-B-5	Plastic 500ml - unpreserved				
2022-04-F-A4-20241016-01	240-213292-C-5	Plastic 500ml - with Nitric Acid	<2			
2022-04-F-A4-20241016-01	240-213292-D-5	Plastic 1 liter - Nitric Acid	<2			
2022-04-F-A4-20241016-01	240-213292-E-5	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-192366.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 240-213292-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/19/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
-
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
2022-05-F-A4-20241015-01 (240-213292-1)	10/15/24	12:55 Eastern	G	Water			X	X	X	2	
DUP-001-F-A4-20241015-01 (240-213292-2)	10/15/24	Eastern	G	Water			X	X	X	2	
FIELD BLANK-001-F-A4-20241015-01 (240-213292-3)	10/15/24	14:40 Eastern	G	Water			X	X	X	2	
EB-001-F-A4-20241015-01 (240-213292-4)	10/15/24	14:45 Eastern	G	Water			X	X	X	2	
2022-04-F-A4-20241016-01 (240-213292-5)	10/16/24	10:35 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	MALISSA LOAR	10-18-24			0900 OCT 21 2024	ET-A-SH
	Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-213292-1

Login Number: 213292
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 10/21/24 01:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

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JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-213429-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

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Authorized for release by
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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213429-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213429-1 — Eurofins Cleveland

Job Narrative
240-213429-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/22/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4°C, 1.5°C, 2.9°C and 4.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following samples were diluted due to the nature of the sample matrix: 2022-03-F-A3-20241017-01 (240-213429-1) and 2022-03-F-A3-20241017-01 (240-213429-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213429-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213429-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213429-1	2022-03-F-A3-20241017-01	Water	10/17/24 12:30	10/22/24 08:00
240-213429-2	2022-03-F-A3-20241017-01	Water	10/17/24 14:55	10/22/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213429-1

Client Sample ID: 2022-03-F-A3-20241017-01 — Lab Sample ID: 240-213429-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	330		100	57	ug/L	1		6010D	Total Recoverable
Calcium	370000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	140000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	25000	B	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	8800000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	210	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	19000		100	13	mg/L	100		300.0	Total/NA
Sulfate	280		100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	15000		1000	780	mg/L	1		SM 2540C	Total/NA

Client Sample ID: 2022-03-F-A3-20241017-01 — Lab Sample ID: 240-213429-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	380		100	57	ug/L	1		6010D	Total Recoverable
Calcium	290000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	88000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	9500	B	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5800000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	160	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	160	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	10000		100	13	mg/L	100		300.0	Total/NA
Sulfate	82	J	100	35	mg/L	100		300.0	Total/NA
Total Dissolved Solids	8500		100	78	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213429-1

Client Sample ID: 2022-03-F-A3-20241017-01
Date Collected: 10/17/24 12:30
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213429-1
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	330		100	57	ug/L		10/23/24 14:00	10/24/24 21:02	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	370000		1000	250	ug/L		10/23/24 14:00	10/24/24 17:01	1
Magnesium	140000		1000	61	ug/L		10/23/24 14:00	10/24/24 17:01	1
Potassium	25000	B	1000	220	ug/L		10/23/24 14:00	10/24/24 17:01	1
Sodium	8800000		10000	8800	ug/L		10/23/24 14:00	10/28/24 17:57	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	210	B	5.0	2.6	mg/L			10/23/24 22:47	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	210	B	5.0	2.6	mg/L			10/23/24 22:47	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 22:47	1
Chloride (EPA 300.0)	19000		100	13	mg/L			10/31/24 09:31	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/31/24 09:31	100
Sulfate (EPA 300.0)	280		100	35	mg/L			10/31/24 09:31	100
Total Dissolved Solids (SM 2540C)	15000		1000	780	mg/L			10/24/24 13:41	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213429-1

Client Sample ID: 2022-03-F-A3-20241017-01
Date Collected: 10/17/24 14:55
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213429-2
Matrix: Water

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	380		100	57	ug/L		10/23/24 14:00	10/24/24 21:07	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	290000		1000	250	ug/L		10/23/24 14:00	10/24/24 17:03	1
Magnesium	88000		1000	61	ug/L		10/23/24 14:00	10/24/24 17:03	1
Potassium	9500	B	1000	220	ug/L		10/23/24 14:00	10/24/24 17:03	1
Sodium	5800000		10000	8800	ug/L		10/23/24 14:00	10/28/24 18:00	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	160	B	5.0	2.6	mg/L			10/23/24 22:52	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	160	B	5.0	2.6	mg/L			10/23/24 22:52	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 22:52	1
Chloride (EPA 300.0)	10000		100	13	mg/L			10/31/24 10:05	100
Fluoride (EPA 300.0)	ND		5.0	2.4	mg/L			10/31/24 10:05	100
Sulfate (EPA 300.0)	82	J	100	35	mg/L			10/31/24 10:05	100
Total Dissolved Solids (SM 2540C)	8500		100	78	mg/L			10/23/24 08:00	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-632079/1-A
Matrix: Water
Analysis Batch: 632391

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/23/24 14:00	10/24/24 20:16	1

Lab Sample ID: LCS 240-632079/2-A
Matrix: Water
Analysis Batch: 632391

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-632079/1-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/23/24 14:00	10/24/24 16:34	1
Magnesium	ND		1000	61	ug/L		10/23/24 14:00	10/24/24 16:34	1
Potassium	235	J	1000	220	ug/L		10/23/24 14:00	10/24/24 16:34	1
Sodium	ND		1000	880	ug/L		10/23/24 14:00	10/24/24 16:34	1

Lab Sample ID: LCS 240-632079/3-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	25200		ug/L		101	80 - 120
Magnesium	25000	25000		ug/L		100	80 - 120
Potassium	25000	25500		ug/L		102	80 - 120
Sodium	25000	25700		ug/L		103	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/109
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Bicarbonate Alkalinity as CaCO3	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 22:12	1

Lab Sample ID: MB 240-632240/83
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-632240/108
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	268		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-633041/3
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/31/24 05:33	1
Fluoride	ND		0.050	0.024	mg/L			10/31/24 05:33	1
Sulfate	ND		1.0	0.35	mg/L			10/31/24 05:33	1

Lab Sample ID: LCS 240-633041/4
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.3		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-632010/1
Matrix: Water
Analysis Batch: 632010

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/23/24 08:00	1

Lab Sample ID: LCS 240-632010/2
Matrix: Water
Analysis Batch: 632010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	462		mg/L		93	80 - 120

Lab Sample ID: MB 240-632202/1
Matrix: Water
Analysis Batch: 632202

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/24/24 07:50	1

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213429-1
Project/Site: Federal CCR Wells - App III

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 240-632202/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 632202

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			495	423		mg/L		85	80 - 120		

Metals

Prep Batch: 632079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total Recoverable	Water	3005A	
240-213429-2	2022-03-F-A3-20241017-01	Total Recoverable	Water	3005A	
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-632079/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-632079/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 632379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total Recoverable	Water	6020B	632079
240-213429-2	2022-03-F-A3-20241017-01	Total Recoverable	Water	6020B	632079
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	6020B	632079
LCS 240-632079/3-A	Lab Control Sample	Total Recoverable	Water	6020B	632079

Analysis Batch: 632391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total Recoverable	Water	6010D	632079
240-213429-2	2022-03-F-A3-20241017-01	Total Recoverable	Water	6010D	632079
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	6010D	632079
LCS 240-632079/2-A	Lab Control Sample	Total Recoverable	Water	6010D	632079

Analysis Batch: 632808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total Recoverable	Water	6020B	632079
240-213429-2	2022-03-F-A3-20241017-01	Total Recoverable	Water	6020B	632079

General Chemistry

Analysis Batch: 632010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-2	2022-03-F-A3-20241017-01	Total/NA	Water	SM 2540C	
MB 240-632010/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-632010/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total/NA	Water	SM 2540C	
MB 240-632202/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-632202/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total/NA	Water	2320B-1997	
240-213429-2	2022-03-F-A3-20241017-01	Total/NA	Water	2320B-1997	
MB 240-632240/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/108	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 633041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213429-1	2022-03-F-A3-20241017-01	Total/NA	Water	300.0	
240-213429-2	2022-03-F-A3-20241017-01	Total/NA	Water	300.0	

General Chemistry (Continued)

Analysis Batch: 633041 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-633041/3	Method Blank	Total/NA	Water	300.0	
LCS 240-633041/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213429-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-03-F-A3-20241017-01
Lab Sample ID: 240-213429-1

Date Collected: 10/17/24 12:30
Matrix: Water
Date Received: 10/22/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6010D		1	632391	RKT	EET CLE	10/24/24 21:02
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		1	632379	AJC	EET CLE	10/24/24 17:01
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		10	632808	AJC	EET CLE	10/28/24 17:57
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 22:47
Total/NA	Analysis	300.0		100	633041	JMR	EET CLE	10/31/24 09:31
Total/NA	Analysis	SM 2540C		1	632202	TAV2	EET CLE	10/24/24 13:41

Client Sample ID: 2022-03-F-A3-20241017-01
Lab Sample ID: 240-213429-2

Date Collected: 10/17/24 14:55
Matrix: Water
Date Received: 10/22/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6010D		1	632391	RKT	EET CLE	10/24/24 21:07
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		1	632379	AJC	EET CLE	10/24/24 17:03
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		10	632808	AJC	EET CLE	10/28/24 18:00
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 22:52
Total/NA	Analysis	300.0		100	633041	JMR	EET CLE	10/31/24 10:05
Total/NA	Analysis	SM 2540C		1	632010	TAV2	EET CLE	10/23/24 08:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213429-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

1.3 / 1.4

Columbus

eurofins Environment Testing America

Client Information	Sampler: Bobby Gasto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-332-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Cheshire	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-03-F-A3-20241017-01	10-17-24	1230	G	W	N		1	1	1		
2022-14-F-A3-20241017-01	10-17-24	1455	G	W	N		1	1	1		

240-213429 COC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10-21-24 0915	KEMRON	[signature]	10/21/24 1852	Eurofins
2	[signature]	10/21/24 1760	Eurofins	[signature]	10-22-24 800	EC
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Lightstone Gavin Site Name
Cooler Received on 10-22-24 Opened on 10-22-24
Cooler unpacked by:
FedEx. 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other
Receipt After-hours Drop-off Date/Time Storage Location
Eurofins Cooler # 2C Foam Box Client Cooler Box Other
Packing material used. Bubble Wrap Foam Plastic Bag None Other
COOLANT: Wet Ice Blue Ice Dry Ice Water None
1 Cooler temperature upon receipt ☑ See Multiple Cooler Form
IR GUN # 17 (CF 0.2 °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	Yes No	**Tests that are not checked for pH by Receiving:** VOAs, Oil and Grease, TOC
-Were the seals on the outside of the cooler(s) signed & dated?	Yes No NA	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes No	
-Were tamper/custody seals intact and uncompromised?	Yes No NA	
3 Shippers' packing slip attached to the cooler(s)?	Yes No	
4. Did custody papers accompany the sample(s)?	Yes No	
5 Were the custody papers relinquished & signed in the appropriate place?	Yes No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes No	
7 Did all bottles arrive in good condition (Unbroken)?	Yes No	
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes No	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10 Were correct bottle(s) used for the test(s) indicated?	Yes No	
11 Sufficient quantity received to perform indicated analyses?	Yes No	
12 Are these work share samples and all listed on the COC?	Yes No	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes No NA	pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes No	
15 Were air bubbles >6 mm in any VOA vials? ● ← Larger than this	Yes No NA	
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes No	
17 Was a LL Hg or Me Hg trip blank present?	Yes No	

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

19 SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved: Preservative(s) added/Lot number(s).

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 11	1.3	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	2.8	2.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	4.4	4.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.4	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 11/19/2024 2:04:52 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-213431-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/19/2024 2:04:52 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213431-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213431-1 — Eurofins Cleveland

Job Narrative
240-213431-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 10/22/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4°C, 1.5°C, 2.9°C and 4.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213431-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213431-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213431-1	2022-06-F-A4-20241018-01	Water	10/18/24 10:25	10/22/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213431-1

Client Sample ID: 2022-06-F-A4-20241018-01

Lab Sample ID: 240-213431-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.5	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	320		5.0	0.77	ug/L	1		6020B	Total Recoverable
Calcium	61000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.9	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.3		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	0.49	J	1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	14		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	9.7		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	2200	B	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	260000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	520	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Fluoride	0.98		0.050	0.024	mg/L	1		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-06-F-A4-20241018-01

Date Collected: 10/18/24 10:25
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213431-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/23/24 14:00	10/24/24 17:06	1
Arsenic	**1.5**	**J**	5.0	0.75	ug/L		10/23/24 14:00	10/24/24 17:06	1
Barium	**320**		5.0	0.77	ug/L		10/23/24 14:00	10/24/24 17:06	1
Beryllium	ND		1.0	0.27	ug/L		10/23/24 14:00	10/24/24 17:06	1
Cadmium	ND		1.0	0.077	ug/L		10/23/24 14:00	10/24/24 17:06	1
Calcium	**61000**		1000	250	ug/L		10/23/24 14:00	10/24/24 17:06	1
Chromium	**1.9**	**J**	5.0	1.2	ug/L		10/23/24 14:00	10/24/24 17:06	1
Cobalt	**1.3**		1.0	0.086	ug/L		10/23/24 14:00	10/24/24 17:06	1
Lead	**0.49**	**J**	1.0	0.45	ug/L		10/23/24 14:00	10/24/24 17:06	1
Lithium	**14**		8.0	3.4	ug/L		10/23/24 14:00	10/24/24 17:06	1
Magnesium	**13000**		1000	61	ug/L		10/23/24 14:00	10/24/24 17:06	1
Molybdenum	**9.7**		5.0	1.1	ug/L		10/23/24 14:00	10/24/24 17:06	1
Potassium	**2200**	**B**	1000	220	ug/L		10/23/24 14:00	10/24/24 17:06	1
Selenium	ND		5.0	0.89	ug/L		10/23/24 14:00	10/24/24 17:06	1
Sodium	**260000**		1000	880	ug/L		10/23/24 14:00	10/24/24 17:06	1
Thallium	ND		1.0	0.51	ug/L		10/23/24 14:00	10/24/24 17:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**520**	**B**	5.0	2.6	mg/L			10/23/24 22:57	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**520**	**B**	5.0	2.6	mg/L			10/23/24 22:57	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 22:57	1
Fluoride (EPA 300.0-1993 R2.1)	**0.98**		0.050	0.024	mg/L			11/12/24 22:22	1

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.678**		0.219	0.227	1.00	0.171	pCi/L	10/25/24 08:58	11/18/24 21:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*30 - 110*	*10/25/24 08:58*	*11/18/24 21:30*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.31**		0.621	0.632	1.00	0.831	pCi/L	10/25/24 09:03	11/15/24 12:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:06*	*1*
Y Carrier	*77.0*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:06*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.99**		0.658	0.672	5.00	0.831	pCi/L		11/19/24 12:39	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213431-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
240-213431-1	2022-06-F-A4-20241018-01	84.6
LCS 160-685129/2-A	Lab Control Sample	92.2
MB 160-685129/1-A	Method Blank	84.8

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
240-213431-1	2022-06-F-A4-20241018-01	84.6	77.0
LCS 160-685130/2-A	Lab Control Sample	92.2	82.2
MB 160-685130/1-A	Method Blank	84.8	80.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-632079/1-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/23/24 14:00	10/24/24 16:34	1
Arsenic	ND		5.0	0.75	ug/L		10/23/24 14:00	10/24/24 16:34	1
Barium	ND		5.0	0.77	ug/L		10/23/24 14:00	10/24/24 16:34	1
Beryllium	ND		1.0	0.27	ug/L		10/23/24 14:00	10/24/24 16:34	1
Cadmium	ND		1.0	0.077	ug/L		10/23/24 14:00	10/24/24 16:34	1
Calcium	ND		1000	250	ug/L		10/23/24 14:00	10/24/24 16:34	1
Chromium	ND		5.0	1.2	ug/L		10/23/24 14:00	10/24/24 16:34	1
Cobalt	ND		1.0	0.086	ug/L		10/23/24 14:00	10/24/24 16:34	1
Lead	ND		1.0	0.45	ug/L		10/23/24 14:00	10/24/24 16:34	1
Lithium	ND		8.0	3.4	ug/L		10/23/24 14:00	10/24/24 16:34	1
Magnesium	ND		1000	61	ug/L		10/23/24 14:00	10/24/24 16:34	1
Molybdenum	ND		5.0	1.1	ug/L		10/23/24 14:00	10/24/24 16:34	1
Potassium	235	J	1000	220	ug/L		10/23/24 14:00	10/24/24 16:34	1
Selenium	ND		5.0	0.89	ug/L		10/23/24 14:00	10/24/24 16:34	1
Sodium	ND		1000	880	ug/L		10/23/24 14:00	10/24/24 16:34	1
Thallium	ND		1.0	0.51	ug/L		10/23/24 14:00	10/24/24 16:34	1

Lab Sample ID: LCS 240-632079/3-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	98.5		ug/L		99	80 - 120
Arsenic	1000	960		ug/L		96	80 - 120
Barium	1000	972		ug/L		97	80 - 120
Beryllium	500	484		ug/L		97	80 - 120
Cadmium	500	472		ug/L		94	80 - 120
Calcium	25000	25200		ug/L		101	80 - 120
Chromium	500	485		ug/L		97	80 - 120
Cobalt	500	480		ug/L		96	80 - 120
Lead	500	484		ug/L		97	80 - 120
Lithium	500	498		ug/L		100	80 - 120
Magnesium	25000	25000		ug/L		100	80 - 120
Molybdenum	500	478		ug/L		96	80 - 120
Potassium	25000	25500		ug/L		102	80 - 120
Selenium	1000	942		ug/L		94	80 - 120
Sodium	25000	25700		ug/L		103	80 - 120
Thallium	1000	1180		ug/L		118	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/109
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Bicarbonate Alkalinity as CaCO3	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 22:12	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: MB 240-632240/83
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1

Lab Sample ID: LCS 240-632240/108
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	268		mg/L		96	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-634868/3
Matrix: Water
Analysis Batch: 634868

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			11/12/24 10:31	1

Lab Sample ID: LCS 240-634868/4
Matrix: Water
Analysis Batch: 634868

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.63		mg/L		105	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-685129/1-A
Matrix: Water
Analysis Batch: 689048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685129

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.001144	U	0.0635	0.0635	1.00	0.140	pCi/L	10/25/24 08:58	11/18/24 16:25	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/25/24 08:58*	*11/18/24 16:25*	*1*

Lab Sample ID: LCS 160-685129/2-A
Matrix: Water
Analysis Batch: 689048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685129

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	10.01		1.11	1.00	0.134	pCi/L	104	75 - 125

Method: 9315 - Radium 226 by GFPC (Continued)

Lab Sample ID: LCS 160-685129/2-A
Matrix: Water
Analysis Batch: 689048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685129

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.2		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-685130/1-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685130

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5440	U	0.390	0.393	1.00	0.589	pCi/L	10/25/24 09:03	11/15/24 12:04	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110	10/25/24 09:03	11/15/24 12:04	1
Y Carrier	80.4		30 - 110	10/25/24 09:03	11/15/24 12:04	1

Lab Sample ID: LCS 160-685130/2-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685130

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.34	10.01		1.35	1.00	0.476	pCi/L	120	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.2		30 - 110
Y Carrier	82.2		30 - 110

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213431-1

Metals

Prep Batch: 632079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213431-1	2022-06-F-A4-20241018-01	Total Recoverable	Water	3005A	
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-632079/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 632379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213431-1	2022-06-F-A4-20241018-01	Total Recoverable	Water	6020B	632079
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	6020B	632079
LCS 240-632079/3-A	Lab Control Sample	Total Recoverable	Water	6020B	632079

General Chemistry

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213431-1	2022-06-F-A4-20241018-01	Total/NA	Water	2320B-1997	
MB 240-632240/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/108	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 634868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213431-1	2022-06-F-A4-20241018-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-634868/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-634868/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 685129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213431-1	2022-06-F-A4-20241018-01	Total/NA	Water	PrecSep-21	
MB 160-685129/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-685129/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 685130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213431-1	2022-06-F-A4-20241018-01	Total/NA	Water	PrecSep_0	
MB 160-685130/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-685130/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213431-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-06-F-A4-20241018-01
Lab Sample ID: 240-213431-1
Date Collected: 10/18/24 10:25
Matrix: Water
Date Received: 10/22/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		1	632379	AJC	EET CLE	10/24/24 17:06
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 22:57
Total/NA	Analysis	300.0-1993 R2.1		1	634868	JMR	EET CLE	11/12/24 22:22
Total/NA	Prep	PrecSep-21			685129	BCE	EET SL	10/25/24 08:58
Total/NA	Analysis	9315		1	689048	SWS	EET SL	11/18/24 21:30
Total/NA	Prep	PrecSep_0			685130	BCE	EET SL	10/25/24 09:03
Total/NA	Analysis	9320		1	688645	SWS	EET SL	11/15/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	689319	SCB	EET SL	11/19/24 12:39

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213431-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213431-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus

Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-06-F-A4-20241018-01	10-18-24	1025	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								
				Water								

240-213431 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Casto	10-21-24 / 0915	KEMRON	Cameron Mosley	10/21/24 1371	Eurofins
2	Cameron Mosley	10/21/24 1715		M. Jones	10-22-24 XXX	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :
Barberton Facility

Client Lightstone Gavin Site Name

Cooler unpacked by:

Cooler Received on 10-22-24 Opened on 10-22-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time Storage Location

Eurofins Cooler # EC Foam Box Client Cooler Box Other

Packing material used. (Bubble Wrap) Foam Plastic Bag None Other

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 17 (CF 0.2 °C) Observed Cooler Temp. °C Corrected Cooler Temp °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. *Did custody papers accompany the sample(s)?*	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6 Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	9	9 9
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC447997
14 Were VOAs on the COC?	Yes	No
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17 Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. *SAMPLE CONDITION*

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container
Sample(s) were received with bubble >6 mm in diameter (Notify PM)

20 SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen.

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 17	1.3	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	2.8	2.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	4.4	4.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	1.4	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #:	

10/22/2024

Login Container Summary Report

240-213431

11/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-06-F-A4-20241018-01	240-213431-A-1	Plastic 250ml - unpreserved				
2022-06-F-A4-20241018-01	240-213431-B-1	Plastic 250ml - unpreserved				
2022-06-F-A4-20241018-01	240-213431-C-1	Plastic 500ml - with Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): N/A	COC No: 240-192517.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): N/A		Job #: 240-213431-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/4/2024			Preservation Codes: -
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: N/A	SSOW#: N/A			Other: N/A

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
2022-06-F-A4-20241018-01 (240-213431-1)	10/18/24	10:25 Eastern	G	Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	MALISSA LOAR	10-2024		M. Pinette	OCT 23 2024 0430	
2	Relinquished by:	Date/Time:	Company	Received by: Meadow Pinette	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

11/19/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-213431-1

Login Number: 213431
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 10/23/24 02:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620
Generated 11/19/2024 2:07:25 PM

JOB DESCRIPTION

Federal CCR Wells - App IV

JOB NUMBER

240-213432-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Authorized for release by
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Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213432-1 Eurofins Cleveland

Job Narrative
240-213432-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/22/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4°C, 1.5°C, 2.9°C and 4.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-03-F-A4-20241017-01 (240-213432-1). Elevated reporting limits (RLs) are provided.

Method 300.0_28D: The following sample was diluted due to the nature of the sample matrix: 2022-14-F-A4-20241017-01 (240-213432-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gas Flow Proportional Counter
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Rad
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CLE
7470A	Mercury (CVAA)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0-1993 R2.1	Anions, Ion Chromatography	EPA	EET CLE
9315	Radium 226 by GFPC	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE
7470A	Preparation, Mercury	SW846	EET CLE
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213432-1	2022-03-F-A4-20241017-01	Water	10/17/24 12:30	10/22/24 08:00
240-213432-2	2022-14-F-A4-20241017-01	Water	10/17/24 14:55	10/22/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213432-1

Client Sample ID: 2022-03-F-A4-20241017-01 — Lab Sample ID: 240-213432-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.3	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	790		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.13	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	370000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	1.3	J	5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	1.6		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lithium	640		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	140000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	170		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	24000		1000	220	ug/L	1		6020B	Total Recoverable
Selenium	2.5	J	5.0	0.89	ug/L	1		6020B	Total Recoverable
Sodium	8800000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	220	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

Client Sample ID: 2022-14-F-A4-20241017-01 — Lab Sample ID: 240-213432-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.65	J	2.0	0.57	ug/L	1		6020B	Total Recoverable
Arsenic	1.9	J	5.0	0.75	ug/L	1		6020B	Total Recoverable
Barium	3300		5.0	0.77	ug/L	1		6020B	Total Recoverable
Cadmium	0.097	J	1.0	0.077	ug/L	1		6020B	Total Recoverable
Calcium	280000		1000	250	ug/L	1		6020B	Total Recoverable
Chromium	19		5.0	1.2	ug/L	1		6020B	Total Recoverable
Cobalt	2.9		1.0	0.086	ug/L	1		6020B	Total Recoverable
Lead	2.3		1.0	0.45	ug/L	1		6020B	Total Recoverable
Lithium	150		8.0	3.4	ug/L	1		6020B	Total Recoverable
Magnesium	85000		1000	61	ug/L	1		6020B	Total Recoverable
Molybdenum	18		5.0	1.1	ug/L	1		6020B	Total Recoverable
Potassium	9700		1000	220	ug/L	1		6020B	Total Recoverable
Sodium	5300000		10000	8800	ug/L	10		6020B	Total Recoverable
Total Alkalinity	160	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	160	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-14-F-A4-20241017-01 (Continued)
Lab Sample ID: 240-213432-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.48	J	0.50	0.24	mg/L	10		300.0-1993 R2.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: 2022-03-F-A4-20241017-01

Date Collected: 10/17/24 12:30
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213432-1

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/23/24 14:00	10/24/24 18:41	1
Arsenic	**1.3**	**J**	5.0	0.75	ug/L		10/23/24 14:00	10/24/24 18:41	1
Barium	**790**		5.0	0.77	ug/L		10/23/24 14:00	10/24/24 18:41	1
Beryllium	ND		1.0	0.27	ug/L		10/23/24 14:00	10/24/24 18:41	1
Cadmium	**0.13**	**J**	1.0	0.077	ug/L		10/23/24 14:00	10/24/24 18:41	1
Calcium	**370000**		1000	250	ug/L		10/23/24 14:00	10/24/24 18:41	1
Chromium	**1.3**	**J**	5.0	1.2	ug/L		10/23/24 14:00	10/24/24 18:41	1
Cobalt	**1.6**		1.0	0.086	ug/L		10/23/24 14:00	10/24/24 18:41	1
Lead	ND		1.0	0.45	ug/L		10/23/24 14:00	10/24/24 18:41	1
Lithium	**640**		8.0	3.4	ug/L		10/23/24 14:00	10/24/24 18:41	1
Magnesium	**140000**		1000	61	ug/L		10/23/24 14:00	10/24/24 18:41	1
Molybdenum	**170**		5.0	1.1	ug/L		10/23/24 14:00	10/24/24 18:41	1
Potassium	**24000**		1000	220	ug/L		10/23/24 14:00	10/24/24 18:41	1
Selenium	**2.5**	**J**	5.0	0.89	ug/L		10/23/24 14:00	10/24/24 18:41	1
Sodium	**8800000**		10000	8800	ug/L		10/23/24 14:00	10/28/24 19:11	10
Thallium	ND		1.0	0.51	ug/L		10/23/24 14:00	10/24/24 18:41	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/23/24 14:00	10/24/24 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	**220**	**B**	5.0	2.6	mg/L			10/23/24 23:04	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	**220**	**B**	5.0	2.6	mg/L			10/23/24 23:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 23:04	1
Fluoride (EPA 300.0-1993 R2.1)	ND		5.0	2.4	mg/L			10/31/24 11:14	100

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.969**		0.238	0.253	1.00	0.177	pCi/L	10/25/24 08:58	11/18/24 21:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*30 - 110*	*10/25/24 08:58*	*11/18/24 21:30*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**3.62**		0.721	0.794	1.00	0.618	pCi/L	10/25/24 09:03	11/15/24 12:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*110*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:06*	*1*
Y Carrier	*75.5*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:06*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213432-1

Client Sample ID: 2022-03-F-A4-20241017-01
Date Collected: 10/17/24 12:30
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213432-1
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.59		0.759	0.833	5.00	0.618	pCi/L		11/19/24 12:39	1

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213432-1

Client Sample ID: 2022-14-F-A4-20241017-01

Date Collected: 10/17/24 14:55
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213432-2

Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.65	J	2.0	0.57	ug/L		10/24/24 14:00	10/25/24 20:31	1
Arsenic	1.9	J	5.0	0.75	ug/L		10/24/24 14:00	10/25/24 20:31	1
Barium	3300		5.0	0.77	ug/L		10/24/24 14:00	10/25/24 20:31	1
Beryllium	ND		1.0	0.27	ug/L		10/24/24 14:00	10/25/24 20:31	1
Cadmium	0.097	J	1.0	0.077	ug/L		10/24/24 14:00	10/25/24 20:31	1
Calcium	280000		1000	250	ug/L		10/24/24 14:00	10/25/24 20:31	1
Chromium	19		5.0	1.2	ug/L		10/24/24 14:00	10/25/24 20:31	1
Cobalt	2.9		1.0	0.086	ug/L		10/24/24 14:00	10/25/24 20:31	1
Lead	2.3		1.0	0.45	ug/L		10/24/24 14:00	10/25/24 20:31	1
Lithium	150		8.0	3.4	ug/L		10/24/24 14:00	10/25/24 20:31	1
Magnesium	85000		1000	61	ug/L		10/24/24 14:00	10/25/24 20:31	1
Molybdenum	18		5.0	1.1	ug/L		10/24/24 14:00	10/25/24 20:31	1
Potassium	9700		1000	220	ug/L		10/24/24 14:00	10/25/24 20:31	1
Selenium	ND		5.0	0.89	ug/L		10/24/24 14:00	10/25/24 20:31	1
Sodium	5300000		10000	8800	ug/L		10/24/24 14:00	10/28/24 19:40	10
Thallium	ND		1.0	0.51	ug/L		10/24/24 14:00	10/25/24 20:31	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/23/24 14:00	10/24/24 10:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	160	B	5.0	2.6	mg/L			10/23/24 23:09	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	160	B	5.0	2.6	mg/L			10/23/24 23:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 23:09	1
Fluoride (EPA 300.0-1993 R2.1)	0.48	J	0.50	0.24	mg/L			10/31/24 11:31	10

Method: SW846 9315 - Radium 226 by GFPC

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.65		0.371	0.400	1.00	0.260	pCi/L	10/25/24 08:58	11/18/24 21:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*10/25/24 08:58*	*11/18/24 21:30*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.67		0.801	0.838	1.00	0.863	pCi/L	10/25/24 09:03	11/15/24 12:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*109*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:06*	*1*
Y Carrier	*77.8*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:06*	*1*

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213432-1

Client Sample ID: 2022-14-F-A4-20241017-01
Date Collected: 10/17/24 14:55
Date Received: 10/22/24 08:00

Lab Sample ID: 240-213432-2
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	4.32		0.883	0.929	5.00	0.863	pCi/L		11/19/24 12:39	1

Tracer/Carrier Summary

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App IV

Job ID: 240-213432-1

Method: 9315 - Radium 226 by GFPC

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
240-213432-1	2022-03-F-A4-20241017-01	110							
240-213432-2	2022-14-F-A4-20241017-01	109							
LCS 160-685129/2-A	Lab Control Sample	92.2							
MB 160-685129/1-A	Method Blank	84.8							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
		Ba	Y						
Lab Sample ID	Client Sample ID	(30-110)	(30-110)						
240-213432-1	2022-03-F-A4-20241017-01	110	75.5						
240-213432-2	2022-14-F-A4-20241017-01	109	77.8						
LCS 160-685130/2-A	Lab Control Sample	92.2	82.2						
MB 160-685130/1-A	Method Blank	84.8	80.4						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-632048/1-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/23/24 14:00	10/24/24 17:25	1
Arsenic	ND		5.0	0.75	ug/L		10/23/24 14:00	10/24/24 17:25	1
Barium	ND		5.0	0.77	ug/L		10/23/24 14:00	10/24/24 17:25	1
Beryllium	ND		1.0	0.27	ug/L		10/23/24 14:00	10/24/24 17:25	1
Cadmium	ND		1.0	0.077	ug/L		10/23/24 14:00	10/24/24 17:25	1
Calcium	ND		1000	250	ug/L		10/23/24 14:00	10/24/24 17:25	1
Chromium	ND		5.0	1.2	ug/L		10/23/24 14:00	10/24/24 17:25	1
Cobalt	ND		1.0	0.086	ug/L		10/23/24 14:00	10/24/24 17:25	1
Lead	ND		1.0	0.45	ug/L		10/23/24 14:00	10/24/24 17:25	1
Lithium	ND		8.0	3.4	ug/L		10/23/24 14:00	10/24/24 17:25	1
Magnesium	ND		1000	61	ug/L		10/23/24 14:00	10/24/24 17:25	1
Molybdenum	ND		5.0	1.1	ug/L		10/23/24 14:00	10/24/24 17:25	1
Potassium	ND		1000	220	ug/L		10/23/24 14:00	10/24/24 17:25	1
Selenium	ND		5.0	0.89	ug/L		10/23/24 14:00	10/24/24 17:25	1
Sodium	ND		1000	880	ug/L		10/23/24 14:00	10/24/24 17:25	1
Thallium	ND		1.0	0.51	ug/L		10/23/24 14:00	10/24/24 17:25	1

Lab Sample ID: LCS 240-632048/3-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	97.0		ug/L		97	80 - 120
Arsenic	1000	947		ug/L		95	80 - 120
Barium	1000	970		ug/L		97	80 - 120
Beryllium	500	472		ug/L		94	80 - 120
Cadmium	500	477		ug/L		95	80 - 120
Calcium	25000	24700		ug/L		99	80 - 120
Chromium	500	488		ug/L		98	80 - 120
Cobalt	500	473		ug/L		95	80 - 120
Lead	500	484		ug/L		97	80 - 120
Lithium	500	495		ug/L		99	80 - 120
Magnesium	25000	24800		ug/L		99	80 - 120
Molybdenum	500	478		ug/L		96	80 - 120
Potassium	25000	25200		ug/L		101	80 - 120
Selenium	1000	930		ug/L		93	80 - 120
Sodium	25000	25200		ug/L		101	80 - 120
Thallium	1000	1170		ug/L		117	80 - 120

Lab Sample ID: MB 240-632283/1-A
Matrix: Water
Analysis Batch: 632529

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.57	ug/L		10/24/24 14:00	10/25/24 19:09	1
Arsenic	ND		5.0	0.75	ug/L		10/24/24 14:00	10/25/24 19:09	1
Barium	ND		5.0	0.77	ug/L		10/24/24 14:00	10/25/24 19:09	1
Beryllium	ND		1.0	0.27	ug/L		10/24/24 14:00	10/25/24 19:09	1
Cadmium	ND		1.0	0.077	ug/L		10/24/24 14:00	10/25/24 19:09	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 240-632283/1-A
Matrix: Water
Analysis Batch: 632529

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/24/24 14:00	10/25/24 19:09	1
Chromium	ND		5.0	1.2	ug/L		10/24/24 14:00	10/25/24 19:09	1
Cobalt	ND		1.0	0.086	ug/L		10/24/24 14:00	10/25/24 19:09	1
Lead	ND		1.0	0.45	ug/L		10/24/24 14:00	10/25/24 19:09	1
Lithium	ND		8.0	3.4	ug/L		10/24/24 14:00	10/25/24 19:09	1
Magnesium	ND		1000	61	ug/L		10/24/24 14:00	10/25/24 19:09	1
Molybdenum	ND		5.0	1.1	ug/L		10/24/24 14:00	10/25/24 19:09	1
Potassium	ND		1000	220	ug/L		10/24/24 14:00	10/25/24 19:09	1
Selenium	ND		5.0	0.89	ug/L		10/24/24 14:00	10/25/24 19:09	1
Sodium	ND		1000	880	ug/L		10/24/24 14:00	10/25/24 19:09	1
Thallium	ND		1.0	0.51	ug/L		10/24/24 14:00	10/25/24 19:09	1

Lab Sample ID: LCS 240-632283/2-A
Matrix: Water
Analysis Batch: 632529

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632283

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	99.0		ug/L		99	80 - 120
Arsenic	1000	923		ug/L		92	80 - 120
Barium	1000	974		ug/L		97	80 - 120
Beryllium	500	469		ug/L		94	80 - 120
Cadmium	500	463		ug/L		93	80 - 120
Calcium	25000	24600		ug/L		98	80 - 120
Chromium	500	486		ug/L		97	80 - 120
Cobalt	500	469		ug/L		94	80 - 120
Lead	500	482		ug/L		96	80 - 120
Lithium	500	495		ug/L		99	80 - 120
Magnesium	25000	25000		ug/L		100	80 - 120
Molybdenum	500	478		ug/L		96	80 - 120
Potassium	25000	25100		ug/L		100	80 - 120
Selenium	1000	889		ug/L		89	80 - 120
Sodium	25000	24900		ug/L		100	80 - 120
Thallium	1000	1170		ug/L		117	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-632062/1-A
Matrix: Water
Analysis Batch: 632325

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 632062

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/23/24 14:00	10/24/24 12:17	1

Lab Sample ID: LCS 240-632062/2-A
Matrix: Water
Analysis Batch: 632325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 632062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.28		ug/L		106	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 240-632071/1-A
Matrix: Water
Analysis Batch: 632325

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 632071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.13	ug/L		10/23/24 14:00	10/24/24 09:52	1

Lab Sample ID: LCS 240-632071/2-A
Matrix: Water
Analysis Batch: 632325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 632071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.23		ug/L		105	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/109
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Bicarbonate Alkalinity as CaCO3	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 22:12	1

Lab Sample ID: MB 240-632240/83
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1

Lab Sample ID: LCS 240-632240/108
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	268		mg/L		96	86 - 123

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 240-633041/3
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.050	0.024	mg/L			10/31/24 05:33	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 240-633041/4
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	2.50	2.58		mg/L		103	90 - 110

Method: 9315 - Radium 226 by GFPC

Lab Sample ID: MB 160-685129/1-A
Matrix: Water
Analysis Batch: 689048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685129

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.001144	U	0.0635	0.0635	1.00	0.140	pCi/L	10/25/24 08:58	11/18/24 16:25	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/25/24 08:58*	*11/18/24 16:25*	*1*

Lab Sample ID: LCS 160-685129/2-A
Matrix: Water
Analysis Batch: 689048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685129

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.58	10.01		1.11	1.00	0.134	pCi/L	104	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.2*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-685130/1-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 685130

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5440	U	0.390	0.393	1.00	0.589	pCi/L	10/25/24 09:03	11/15/24 12:04	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:04*	*1*
Y Carrier	*80.4*		*30 - 110*	*10/25/24 09:03*	*11/15/24 12:04*	*1*

Lab Sample ID: LCS 160-685130/2-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685130

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.34	10.01		1.35	1.00	0.476	pCi/L	120	75 - 125

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-685130/2-A
Matrix: Water
Analysis Batch: 688645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 685130

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.2		30 - 110
Y Carrier	82.2		30 - 110

Metals

Prep Batch: 632048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total Recoverable	Water	3005A	
MB 240-632048/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-632048/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 632062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total/NA	Water	7470A	
MB 240-632062/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-632062/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 632071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-2	2022-14-F-A4-20241017-01	Total/NA	Water	7470A	
MB 240-632071/1-A	Method Blank	Total/NA	Water	7470A	
LCS 240-632071/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 632283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-2	2022-14-F-A4-20241017-01	Total Recoverable	Water	3005A	
MB 240-632283/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-632283/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 632325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total/NA	Water	7470A	632062
240-213432-2	2022-14-F-A4-20241017-01	Total/NA	Water	7470A	632071
MB 240-632062/1-A	Method Blank	Total/NA	Water	7470A	632062
MB 240-632071/1-A	Method Blank	Total/NA	Water	7470A	632071
LCS 240-632062/2-A	Lab Control Sample	Total/NA	Water	7470A	632062
LCS 240-632071/2-A	Lab Control Sample	Total/NA	Water	7470A	632071

Analysis Batch: 632379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total Recoverable	Water	6020B	632048
MB 240-632048/1-A	Method Blank	Total Recoverable	Water	6020B	632048
LCS 240-632048/3-A	Lab Control Sample	Total Recoverable	Water	6020B	632048

Analysis Batch: 632529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-2	2022-14-F-A4-20241017-01	Total Recoverable	Water	6020B	632283
MB 240-632283/1-A	Method Blank	Total Recoverable	Water	6020B	632283
LCS 240-632283/2-A	Lab Control Sample	Total Recoverable	Water	6020B	632283

Analysis Batch: 632808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total Recoverable	Water	6020B	632048
240-213432-2	2022-14-F-A4-20241017-01	Total Recoverable	Water	6020B	632283

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

General Chemistry

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total/NA	Water	2320B-1997	
240-213432-2	2022-14-F-A4-20241017-01	Total/NA	Water	2320B-1997	
MB 240-632240/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/108	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 633041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total/NA	Water	300.0-1993 R2.1	
240-213432-2	2022-14-F-A4-20241017-01	Total/NA	Water	300.0-1993 R2.1	
MB 240-633041/3	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 240-633041/4	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	

Rad

Prep Batch: 685129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total/NA	Water	PrecSep-21	
240-213432-2	2022-14-F-A4-20241017-01	Total/NA	Water	PrecSep-21	
MB 160-685129/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-685129/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 685130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213432-1	2022-03-F-A4-20241017-01	Total/NA	Water	PrecSep_0	
240-213432-2	2022-14-F-A4-20241017-01	Total/NA	Water	PrecSep_0	
MB 160-685130/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-685130/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

Client Sample ID: 2022-03-F-A4-20241017-01
Lab Sample ID: 240-213432-1

Date Collected: 10/17/24 12:30
Matrix: Water
Date Received: 10/22/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			632048	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		1	632379	AJC	EET CLE	10/24/24 18:41
Total Recoverable	Prep	3005A			632048	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		10	632808	AJC	EET CLE	10/28/24 19:11
Total/NA	Prep	7470A			632062	XWS6	EET CLE	10/23/24 14:00
Total/NA	Analysis	7470A		1	632325	S4FJ	EET CLE	10/24/24 12:57
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 23:04
Total/NA	Analysis	300.0-1993 R2.1		100	633041	JMR	EET CLE	10/31/24 11:14
Total/NA	Prep	PrecSep-21			685129	BCE	EET SL	10/25/24 08:58
Total/NA	Analysis	9315		1	689048	SWS	EET SL	11/18/24 21:30
Total/NA	Prep	PrecSep_0			685130	BCE	EET SL	10/25/24 09:03
Total/NA	Analysis	9320		1	688645	SWS	EET SL	11/15/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	689319	SCB	EET SL	11/19/24 12:39

Client Sample ID: 2022-14-F-A4-20241017-01
Lab Sample ID: 240-213432-2

Date Collected: 10/17/24 14:55
Matrix: Water
Date Received: 10/22/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			632283	XWS6	EET CLE	10/24/24 14:00
Total Recoverable	Analysis	6020B		1	632529	AJC	EET CLE	10/25/24 20:31
Total Recoverable	Prep	3005A			632283	XWS6	EET CLE	10/24/24 14:00
Total Recoverable	Analysis	6020B		10	632808	AJC	EET CLE	10/28/24 19:40
Total/NA	Prep	7470A			632071	XWS6	EET CLE	10/23/24 14:00
Total/NA	Analysis	7470A		1	632325	S4FJ	EET CLE	10/24/24 10:31
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 23:09
Total/NA	Analysis	300.0-1993 R2.1		10	633041	JMR	EET CLE	10/31/24 11:31
Total/NA	Prep	PrecSep-21			685129	BCE	EET SL	10/25/24 08:58
Total/NA	Analysis	9315		1	689048	SWS	EET SL	11/18/24 21:30
Total/NA	Prep	PrecSep_0			685130	BCE	EET SL	10/25/24 09:03
Total/NA	Analysis	9320		1	688645	SWS	EET SL	11/15/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	689319	SCB	EET SL	11/19/24 12:39

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213432-1
Project/Site: Federal CCR Wells - App IV

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus

eurofins Environment Testing America

Client Information	Sampler: Bobby Coate	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4388	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra226, Ra228Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-03-F-A4-20241017-01	10-17-24	1230	G	Water	N		1	1	1	2		
2022-14-F-A4-20241017-01	10-17-24	1455	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-213432 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Coate	10-21-24/0915	KEMRON	Cameron Mabry	10/21/24 17:21	Eurofins
2	Cameron Mabry	10/21/24 1720	Eurofins		10-22-24 800	EC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

11/19/2024

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Gavin Site Name _____ Cooler unpacked by:

Cooler Received on 10-22-24 Opened on 10-22-24

FedEx. 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☒ *See Multiple Cooler Form*

IR GUN # 17 (CF 0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	(Yes) No	
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No NA	
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	(Yes) No NA	
3 *Shippers' packing slip attached to the cooler(s)?*	Yes (No)	
4 Did custody papers accompany the sample(s)?	(Yes) No	
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7 Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y) / (Y) / (Y)	
10 Were correct bottle(s) used for the *test(s)* indicated?	(Yes) No	
11 Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No NA	pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes (No)	
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes (No) NA	
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)	
17 Was a LL Hg or Me Hg trip blank present? _____	Yes (No)	

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19 SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved. _____ Preservative(s) added/Lot number(s) _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 17	1.3	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	2.8	2.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	4.4	4.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.4	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	

10/22/2024

Login Container Summary Report

240-213432

11/19/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-03-F-A4-20241017-01	240-213432-A-1	Plastic 250ml - unpreserved				
2022-03-F-A4-20241017-01	240-213432-B-1	Plastic 500ml - unpreserved				
2022-03-F-A4-20241017-01	240-213432-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A4-20241017-01	240-213432-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-A4-20241017-01	240-213432-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20241017-01	240-213432-A-2	Plastic 250ml - unpreserved				
2022-14-F-A4-20241017-01	240-213432-B-2	Plastic 500ml - unpreserved				
2022-14-F-A4-20241017-01	240-213432-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-A4-20241017-01	240-213432-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20241017-01	240-213432-E-2	Plastic 1 liter - Nitric Acid	<2			

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus

eurofins Environment Testing America

Client Information	Sampler: Bobby Cato	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s):	COC No: 240-93466-34578.1
Client Contact: Taylor Huffman	Phone: 740-373-4388	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App IV	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020, 7470A	300.0_28D - Fluoride	2320B - Alkalinity	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	D		
2022-03-F-A4-20241017-01	10-17-24	1230	G	Water	N		1	1	1	2		
2022-14-F-A4-20241017-01	10-17-24	1455	G	Water	N		1	1	1	2		
				Water								
				Water								
				Water								

240-213432 COC

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Bobby Cato	10-21-24/0915	KEMRON	Cameron Mabry	10/21/24 17:21	Eurofins
2	Cameron Mabry	10/21/24 1720	Eurofins		10-22-24 800	EC
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lighthouse Gavin Site Name _____ Cooler unpacked by:

Cooler Received on 10-22-24 Opened on 10-22-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 17 (CF 0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	(Yes) No	
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes) No	NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)	
-Were tamper/custody seals intact and uncompromised?	(Yes) No	NA
3. Shippers' packing slip attached to the cooler(s)?	Yes (No)	
4. Did custody papers accompany the sample(s)?	(Yes) No	
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes) No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No	
7. Did all bottles arrive in good condition (Unbroken)?	(Yes) No	
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes) No	
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	(Yes) No	
11. Sufficient quantity received to perform indicated analyses?	(Yes) No	
12. Are these work share samples and all listed on the COC?	Yes (No)	
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes) No	NA pH Strip Lot# HC447997
14. Were VOAs on the COC?	Yes (No)	
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes (No)	NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)	
17. Was a LL Hg or Me Hg trip blank present? _____	Yes (No)	

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____
_____
_____
_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 11	1.3	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	2.8	2.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	4.4	4.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.4	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	

10/22/2024

Login Container Summary Report

240-213432

11/19/2024

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-03-F-A4-20241017-01	240-213432-A-1	Plastic 250ml - unpreserved				
2022-03-F-A4-20241017-01	240-213432-B-1	Plastic 500ml - unpreserved				
2022-03-F-A4-20241017-01	240-213432-C-1	Plastic 500ml - with Nitric Acid	<2			
2022-03-F-A4-20241017-01	240-213432-D-1	Plastic 1 liter - Nitric Acid	<2			
2022-03-F-A4-20241017-01	240-213432-E-1	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20241017-01	240-213432-A-2	Plastic 250ml - unpreserved				
2022-14-F-A4-20241017-01	240-213432-B-2	Plastic 500ml - unpreserved				
2022-14-F-A4-20241017-01	240-213432-C-2	Plastic 500ml - with Nitric Acid	<2			
2022-14-F-A4-20241017-01	240-213432-D-2	Plastic 1 liter - Nitric Acid	<2			
2022-14-F-A4-20241017-01	240-213432-E-2	Plastic 1 liter - Nitric Acid	<2			

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): N/A	COC No: 240-192517.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: roxanne.cisneros@et.eurofinsus.com	State of Origin: Ohio	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): N/A		Job #: 240-213432-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/4/2024			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes: -

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC)	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
2022-03-F-A4-20241017-01 (240-213432-1)	10/17/24	12:30 Eastern	G	Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by: MALISSA LUAR	Date/Time: 10-22-24	Company	Received by: M. Pinette	Date/Time: OCT 23 2024 0930	Company
	Relinquished by:	Date/Time:	Company	Received by: Meadow Pinette	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Lightstone Generation Gavin Power LLC

Job Number: 240-213432-1

Login Number: 213432
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 10/23/24 02:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Taylor Huffman
Lightstone Generation Gavin Power LLC
7397 OH-7
Cheshire, Ohio 45620

Generated 11/4/2024 9:43:48 PM

JOB DESCRIPTION

Federal CCR Wells - App III

JOB NUMBER

240-213439-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Roxanne Cisneros

Generated
11/4/2024 9:43:48 PM

Authorized for release by
Roxanne Cisneros, Senior Project Manager
roxanne.cisneros@et.eurofinsus.com
(615)301-5761

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Definitions/Glossary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 240-213439-1 — Eurofins Cleveland

Job Narrative
240-213439-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 10/22/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4°C, 1.5°C, 2.9°C and 4.5°C.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET CLE
6020B	Metals (ICP/MS)	SW846	EET CLE
2320B-1997	Alkalinity, Total	SM	EET CLE
300.0	Anions, Ion Chromatography	EPA	EET CLE
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CLE

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-213439-1	2022-06-F-A3-20241018-01	Water	10/18/24 10:25	10/22/24 08:00

Detection Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-06-F-A3-20241018-01
Lab Sample ID: 240-213439-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	120		100	57	ug/L	1		6010D	Total Recoverable
Calcium	61000		1000	250	ug/L	1		6020B	Total Recoverable
Magnesium	13000		1000	61	ug/L	1		6020B	Total Recoverable
Potassium	2100	B	1000	220	ug/L	1		6020B	Total Recoverable
Sodium	250000		1000	880	ug/L	1		6020B	Total Recoverable
Total Alkalinity	520	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Bicarbonate Alkalinity as CaCO3	520	B	5.0	2.6	mg/L	1		2320B-1997	Total/NA
Chloride	140		1.0	0.13	mg/L	1		300.0	Total/NA
Fluoride	0.95		0.050	0.024	mg/L	1		300.0	Total/NA
Sulfate	25		1.0	0.35	mg/L	1		300.0	Total/NA
Total Dissolved Solids	710		10	7.8	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Lightstone Generation Gavin Power LLC
Project/Site: Federal CCR Wells - App III

Job ID: 240-213439-1

Client Sample ID: 2022-06-F-A3-20241018-01

Lab Sample ID: 240-213439-1

Date Collected: 10/18/24 10:25

Matrix: Water

Date Received: 10/22/24 08:00

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	120		100	57	ug/L		10/23/24 14:00	10/24/24 21:11	1

Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	61000		1000	250	ug/L		10/23/24 14:00	10/24/24 17:09	1
Magnesium	13000		1000	61	ug/L		10/23/24 14:00	10/24/24 17:09	1
Potassium	2100	B	1000	220	ug/L		10/23/24 14:00	10/24/24 17:09	1
Sodium	250000		1000	880	ug/L		10/23/24 14:00	10/24/24 17:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity (SM 2320B-1997)	520	B	5.0	2.6	mg/L			10/23/24 23:14	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B-1997)	520	B	5.0	2.6	mg/L			10/23/24 23:14	1
Carbonate Alkalinity as CaCO3 (SM 2320B-1997)	ND		5.0	2.6	mg/L			10/23/24 23:14	1
Chloride (EPA 300.0)	140		1.0	0.13	mg/L			10/31/24 12:22	1
Fluoride (EPA 300.0)	0.95		0.050	0.024	mg/L			10/31/24 12:22	1
Sulfate (EPA 300.0)	25		1.0	0.35	mg/L			10/31/24 12:22	1
Total Dissolved Solids (SM 2540C)	710		10	7.8	mg/L			10/23/24 08:00	1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 240-632079/1-A
Matrix: Water
Analysis Batch: 632391

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		100	57	ug/L		10/23/24 14:00	10/24/24 20:16	1

Lab Sample ID: LCS 240-632079/2-A
Matrix: Water
Analysis Batch: 632391

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1030		ug/L		103	80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-632079/1-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1000	250	ug/L		10/23/24 14:00	10/24/24 16:34	1
Magnesium	ND		1000	61	ug/L		10/23/24 14:00	10/24/24 16:34	1
Potassium	235	J	1000	220	ug/L		10/23/24 14:00	10/24/24 16:34	1
Sodium	ND		1000	880	ug/L		10/23/24 14:00	10/24/24 16:34	1

Lab Sample ID: LCS 240-632079/3-A
Matrix: Water
Analysis Batch: 632379

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 632079

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	25200		ug/L		101	80 - 120
Magnesium	25000	25000		ug/L		100	80 - 120
Potassium	25000	25500		ug/L		102	80 - 120
Sodium	25000	25700		ug/L		103	80 - 120

Method: 2320B-1997 - Alkalinity, Total

Lab Sample ID: MB 240-632240/109
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Bicarbonate Alkalinity as CaCO3	2.93	J	5.0	2.6	mg/L			10/23/24 22:12	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 22:12	1

Lab Sample ID: MB 240-632240/83
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Bicarbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1
Carbonate Alkalinity as CaCO3	ND		5.0	2.6	mg/L			10/23/24 20:14	1

Method: 2320B-1997 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 240-632240/108
Matrix: Water
Analysis Batch: 632240

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity	280	268		mg/L		96	86 - 123

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 240-633041/3
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.13	mg/L			10/31/24 05:33	1
Fluoride	ND		0.050	0.024	mg/L			10/31/24 05:33	1
Sulfate	ND		1.0	0.35	mg/L			10/31/24 05:33	1

Lab Sample ID: LCS 240-633041/4
Matrix: Water
Analysis Batch: 633041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.6		mg/L		101	90 - 110
Fluoride	2.50	2.58		mg/L		103	90 - 110
Sulfate	50.0	51.3		mg/L		103	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 240-632010/1
Matrix: Water
Analysis Batch: 632010

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	7.8	mg/L			10/23/24 08:00	1

Lab Sample ID: LCS 240-632010/2
Matrix: Water
Analysis Batch: 632010

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	495	462		mg/L		93	80 - 120

QC Association Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Metals

Prep Batch: 632079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213439-1	2022-06-F-A3-20241018-01	Total Recoverable	Water	3005A	
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-632079/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-632079/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 632379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213439-1	2022-06-F-A3-20241018-01	Total Recoverable	Water	6020B	632079
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	6020B	632079
LCS 240-632079/3-A	Lab Control Sample	Total Recoverable	Water	6020B	632079

Analysis Batch: 632391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213439-1	2022-06-F-A3-20241018-01	Total Recoverable	Water	6010D	632079
MB 240-632079/1-A	Method Blank	Total Recoverable	Water	6010D	632079
LCS 240-632079/2-A	Lab Control Sample	Total Recoverable	Water	6010D	632079

General Chemistry

Analysis Batch: 632010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213439-1	2022-06-F-A3-20241018-01	Total/NA	Water	SM 2540C	
MB 240-632010/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-632010/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 632240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213439-1	2022-06-F-A3-20241018-01	Total/NA	Water	2320B-1997	
MB 240-632240/109	Method Blank	Total/NA	Water	2320B-1997	
MB 240-632240/83	Method Blank	Total/NA	Water	2320B-1997	
LCS 240-632240/108	Lab Control Sample	Total/NA	Water	2320B-1997	

Analysis Batch: 633041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-213439-1	2022-06-F-A3-20241018-01	Total/NA	Water	300.0	
MB 240-633041/3	Method Blank	Total/NA	Water	300.0	
LCS 240-633041/4	Lab Control Sample	Total/NA	Water	300.0	

Lab Chronicle

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Client Sample ID: 2022-06-F-A3-20241018-01
Lab Sample ID: 240-213439-1
Date Collected: 10/18/24 10:25
Matrix: Water
Date Received: 10/22/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6010D		1	632391	RKT	EET CLE	10/24/24 21:11
Total Recoverable	Prep	3005A			632079	XWS6	EET CLE	10/23/24 14:00
Total Recoverable	Analysis	6020B		1	632379	AJC	EET CLE	10/24/24 17:09
Total/NA	Analysis	2320B-1997		1	632240	BLW	EET CLE	10/23/24 23:14
Total/NA	Analysis	300.0		1	633041	JMR	EET CLE	10/31/24 12:22
Total/NA	Analysis	SM 2540C		1	632010	TAV2	EET CLE	10/23/24 08:00

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Lightstone Generation Gavin Power LLC
Job ID: 240-213439-1
Project/Site: Federal CCR Wells - App III

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-28-25
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-25
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kentucky (UST)	State	112225	02-27-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-02-25
Ohio VAP	State	ORELAP 4062	02-27-25
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-25
Texas	NELAP	T104704517-22-19	08-31-25
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-24

180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

Columbus

eurofins Environment Testing America

Client Information	Sampler: Bobby Casto	Lab PM: Cisneros, Roxanne	Carrier Tracking No(s): 209	COC No: 240-93465-34577.1
Client Contact: Taylor Huffman	Phone: 740-373-4308	E-Mail: roxanne.cisneros@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Lightstone Generation Gavin Power LLC	PWSID:			Job #:
Address: 7397 OH-7	Due Date Requested:			
City: Cheshire	TAT Requested (days):			
State, Zip: OH, 45620	Compliance Project: Δ Yes Δ No			
Phone: 740-925-3171(Tel)	PO #: 2935505			
Email: taylor.huffman@lightstonegen.com	WO #:			
Project Name: Federal CCR Wells - App III	Project #: 24019633			
Site: Gavin	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 6020	2540C_Calcd, 300.0_28D	2320B - Alkalinity	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N		
2022-06-F-A3-20241018-01	10-18-24	1025	G	W	N		1	1	1		

240-213439 COC

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10-21-24 0915	KEMRON	[signature]	10/21/24 1327	Eurofins
2	[signature]	10/21/24 1760	Eurofins	[signature]	10-22-24 800	EC
3	[signature]	Date/Time:	Company	[signature]	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins – Cleveland Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client Lightstone Gavin Site Name _____ Cooler unpacked by:

Cooler Received on 10-22-24 Opened on 10-22-24

FedEx: 1st Grd Exp UPS FAS (Waypoint) Client Drop Off Eurofins Courier Other

Receipt After-hours Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # EC Foam Box Client Cooler Box Other _____

Packing material used. (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1 Cooler temperature upon receipt ☑ See Multiple Cooler Form

IR GUN # 17 (CF 0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 4	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3 Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5 Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No
7 Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8 Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9 For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(Y) (Y)
10 Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11 Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory		
13 Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC447997
14 Were VOAs on the COC?	Yes	(No)
15 Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	(No) NA
16 Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17 Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page | Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container

Sample(s) _____ were received with bubble >6 mm in diameter (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen. _____

Login # : _____

Eurofins - Cleveland Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
(EC) Client Box Other	IR GUN #: 11	1.3	1.4	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	2.8	2.9	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	4.9	4.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	1.9	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR GUN #: _____	

10/22/2024

Login Container Summary Report

240-213439

11/4/2024

Temperature readings _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservation Added	Preservation Lot Number
2022-06-F-A3-20241018-01	240-213439-A-1	Plastic 250ml - unpreserved				
2022-06-F-A3-20241018-01	240-213439-B-1	Plastic 250ml - unpreserved				
2022-06-F-A3-20241018-01	240-213439-C-1	Plastic 500ml - with Nitric Acid	<2			



Argentina
Australia
Belgium
Brazil
Canada
China
Colombia
France
Germany
Ghana
Guyana
Hong Kong
India
Indonesia
Ireland
Italy
Japan
Kazakhstan
Kenya
Malaysia
Mexico
Mozambique
The Netherlands
New Zealand
Peru
Poland
Portugal
Puerto Rico
Romania
Senegal
Singapore
South Africa
South Korea
Spain
Switzerland
Taiwan
Tanzania
Thailand
UAE
UK
US
Vietnam

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