HALEY ALDRICH

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ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
LANDFILL
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

by
Haley & Aldrich, Inc.
Greenville, South Carolina

for
Southern Indiana Gas and Electric Company
Evansville, Indiana

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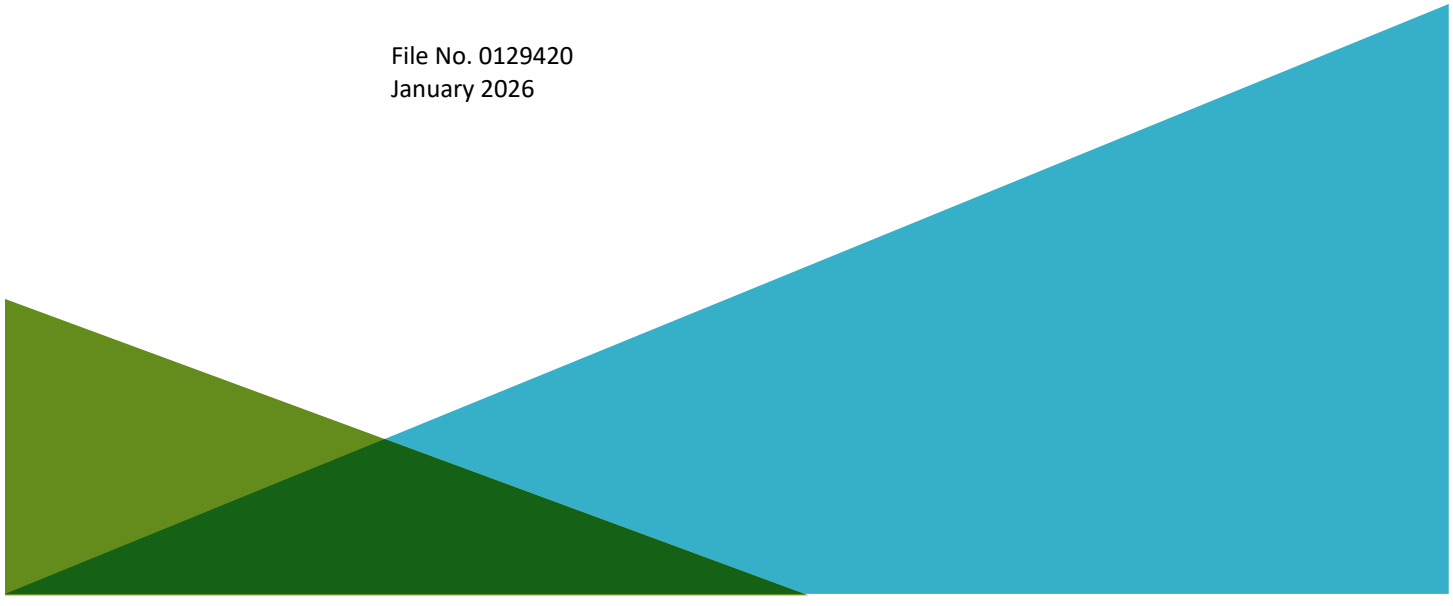

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1. Annual Groundwater Monitoring Report Summary

1.1 CODE OF FEDERAL REGULATIONS TITLE 40 (40 CFR) § 257.90(e)(6) SUMMARY

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the [coal combustion residual] CCR unit. At a minimum, the summary must specify all of the following.

1.1.1 40 CFR § 257.90(e)(6)(i) – Status of Monitoring Program at Start of Reporting Period

At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.

At the start of the current annual reporting period (January 1, 2025), the Landfill at A.B. Brown Generating Station (ABB) was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.2 40 CFR § 257.90(e)(6)(ii) – Status of Monitoring Program at End of Reporting Period

At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.

At the end of the current annual reporting period (December 31, 2025), the Landfill was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.3 40 CFR § 257.90(e)(6)(iii) – Statistically Significant Increases

If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to this part pursuant to § 257.94(e).

1.1.3.1 40 CFR § 257.90(e)(6)(iii)(A)

Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase.

The Landfill was operating under an assessment monitoring program throughout 2025; therefore, no statistical evaluations were conducted on Appendix III constituents in 2025.

1.1.3.2 40 CFR § 257.90(e)(6)(iii)(B)

Provide the date when the assessment monitoring program was initiated for the CCR unit.

An assessment monitoring program was established on August 15, 2018, for the Landfill to meet the requirements of 40 CFR § 257.95. The Landfill has remained in assessment monitoring since that time.

1.1.4 40 CFR § 257.90(e)(6)(iv) – Statistically Significant Levels

If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to this part pursuant to § 257.95(g) include all of the following.

1.1.4.1 40 CFR § 257.90(e)(6)(iv)(A) – Statistically Significant Level Constituents

Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase.

Statistical analyses of Appendix IV constituents were completed in 2025 following the November 2024 and May 2025 semiannual assessment monitoring events as described in 40 CFR § 257.93(h)(2). Statistically significant levels (SSLs) were not identified at any of the monitoring wells in 2025. A summary of the statistical analysis is included in Appendix A.

1.1.4.2 40 CFR § 257.90(e)(6)(iv)(B) – Initiation of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was initiated for the CCR unit.

An assessment of corrective measures has not been initiated for this unit as no SSLs were identified during the 2025 reporting period. The Landfill remained in assessment monitoring during 2025.

1.1.4.3 40 CFR § 257.90(e)(6)(iv)(C) – Assessment of Corrective Measures Public Meeting

Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.

An assessment of corrective measures was not required and, as a result, was not initiated for the Landfill during the 2025 reporting period. A public meeting was not held.

1.1.4.4 40 CFR § 257.90(e)(6)(iv)(D) – Completion of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was completed for the CCR unit.

An assessment of corrective measures has not been completed for this unit since no SSLs have been identified during the 2025 reporting period. The Landfill remained in assessment monitoring during 2025.

1.1.5 40 CFR § 257.90(e)(6)(v) – Selection of Remedy

Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection.

Since an assessment of corrective measures has not been required, the selection of remedy under 40 CFR § 257.97 is not required.

1.1.6 40 CFR § 257.90(e)(6)(vi) – Remedial Activities

Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

Remedial activities were not required in 2025; therefore, no demonstration or certification is applicable.

1.2 40 CFR § 257.90(a)

Except as provided for in § 257.100 for inactive CCR surface impoundments, all CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under § 257.90 through § 257.98.

The Landfill at ABB is subject to the groundwater monitoring and corrective action requirements described under 40 CFR § 257.90 through § 257.98 (the Rule). The remainder of this document addresses the requirement for the Owner/Operator to prepare an Annual Groundwater Monitoring and Corrective Action Report per 40 CFR § 257.90(e).

1.3 40 CFR § 257.90(e) – SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

This *2025 Annual Groundwater Monitoring and Corrective Action Report* documents the activities completed during the 2025 reporting period for the Landfill as required by the Rule. Semiannual groundwater sampling and analysis was conducted per the requirements described in 40 CFR § 257.93, and the status of the groundwater monitoring program is provided in this report as required by 40 CFR § 257.95. Field forms pertaining to those sampling events are included in Appendix B and laboratory analytical reports are included in Appendix C.

1.3.1 Status of the Groundwater Monitoring Program

Semiannual groundwater sampling activities continued in 2025 to satisfy requirements of 40 CFR § 257.95(b) and 40 CFR § 257.95(d)(1). Groundwater samples were collected from the monitoring wells at the Landfill on May 7 and 8, 2025, and again on November 3 and 4, 2025. Groundwater monitoring

well location and construction details for the existing monitoring well network are summarized in Table 1.

Statistical analysis of Appendix IV constituents collected during the November 2024 sampling event was completed on March 12, 2025, within 90-days following the receipt of laboratory analytical results on December 31, 2024, per the requirements of 40 CFR § 257.93(h)(2). Statistical analysis of Appendix IV constituents collected during the May 2025 sampling event was completed on September 11, 2025, within 90-days following the receipt of laboratory analytical results on June 13, 2025, per the requirements of 40 CFR § 257.93(h)(2). Statistical analysis of Appendix IV constituents collected during the November 2025 sampling event will be completed within the 2026 reporting period and will be included in the 2026 annual report.

Intrawell statistical analysis was used to evaluate arsenic, cobalt, and lithium as a result of the Alternate Source Demonstration dated July 24, 2019. Statistical analysis of Appendix IV constituents during the 2025 reporting period continued to demonstrate that SSLs of Appendix IV constituents are not present in groundwater downgradient of the Landfill. Although SSLs were not identified, some concentrations remain above background and in accordance with 40 CFR § 257.95(f), the Landfill will continue with semiannual assessment monitoring.

1.3.2 Key Actions Completed

The following key actions were completed in 2025:

- January 31, 2025 – Prepared the *2024 Annual Groundwater Monitoring and Corrective Action Report* (2024 Annual Report) including:
  - Pursuant to 40 CFR § 257.105(h)(1), the 2024 Annual Report was placed in the facility's operating record on January 31, 2025;
  - Pursuant to 40 CFR § 257.107(h)(1), the 2024 Annual Report was posted to the CCR Website within 30 days of the 2024 Annual Report being placed in the facility's operating record [40 CFR § 257.107(d) and 40 CFR § 257.107(h)(1)];
  - Pursuant to 40 CFR § 257.106(h)(1), the notification was sent to the relevant State Director and/or Tribal authority within 30 days of the 2024 Annual Report being placed in the facility's operating record and following posting to the CCR website [40 CFR § 257.106(d)].
- March 12, 2025 – Completed statistical analysis of the November 2024 assessment monitoring laboratory analytical results received on December 31, 2024.
- May 5, 2025 – Measured static water levels in groundwater monitoring wells at the Landfill before beginning the May 2025 sampling event and again immediately prior to collecting each sample to evaluate groundwater flow direction and rate per the requirements of 40 CFR § 257.93(c).
- May 7 and 8, 2025 – Collected groundwater samples from monitoring wells at the Landfill for laboratory analysis in accordance with 40 CFR § 257.95.
- September 11, 2025 – Completed statistical analysis of May 2025 assessment monitoring laboratory analytical results received on June 13, 2025.
- November 3, 2025 – Measured static water levels in groundwater monitoring wells at the Landfill before beginning the November 2025 sampling event and again immediately prior to

collecting each sample to evaluate groundwater flow direction and rate per the requirements of 40 CFR § 257.93(c).

- November 3 and 4, 2025 – Collected groundwater samples from monitoring wells at the Landfill for laboratory analysis in accordance with 40 CFR § 257.95.

1.3.3 Problems Encountered

Problems encountered during the May 2025 and November 2025 sampling events include:

- No problems were encountered at the Landfill during the 2025 reporting period.

1.3.4 Actions to Resolve Problems

No actions were taken as no problems were encountered during the 2025 reporting period.

1.3.5 Project Key Activities for Upcoming Year

Key activities to be completed in 2026 include the following:

- Continue semiannual groundwater monitoring in accordance with 40 CFR § 257.95.
- Complete statistical analyses of the semiannual groundwater sampling results within 90-days of sampling and analysis as required by 40 CFR § 257.93(h)(2).

1.4 40 CFR § 257.90(e) – INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available.

1.4.1 40 CFR § 257.90(e)(1)

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.

As required by 40 CFR § 257.90(e)(1), a map showing the locations of the Landfill and associated upgradient and downgradient wells is presented on Figure 1. Groundwater elevation contours for the May 2025 event are presented on Figure 2. Groundwater elevation contours for the November 2025 event are presented on Figure 3.

1.4.2 40 CFR § 257.90(e)(2)

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken.

There was no installation or decommissioning of monitoring wells during 2025.

1.4.3 40 CFR § 257.90(e)(3)

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs.

In accordance with 40 CFR § 257.95(b) and § 257.95(d)(1), two independent samples from each background and downgradient monitoring well were collected and analyzed. A summary table including the sample names, dates of sample collection, reason for sample collection (detection or assessment), and monitoring data obtained for the groundwater monitoring program for the Landfill is presented in Table 2.

1.4.4 40 CFR § 257.90(e)(4)

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels).

The results of the statistical analyses for the November 2024 and May 2025 sampling events continued to demonstrate that SSLs of Appendix IV constituents were not present in groundwater downgradient of the Landfill. Although SSLs were not present, two monitoring wells had Appendix IV constituent concentrations above background in May and November 2025; therefore, in accordance with 40 CFR § 257.95(f), the Landfill will continue with semiannual assessment monitoring. Statistical analysis for the November 2025 sampling event is ongoing and will be completed within 90-days following the receipt of laboratory analytical results on December 12, 2025, to determine if a statistically significant increase over background has occurred.

1.4.5 40 CFR § 257.90(e)(5)

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

Other information including development of groundwater protection standards, recording of groundwater monitoring results in the operating record, and an evaluation of alternate sources was discussed in prior annual reports.

TABLES

TABLE 1

GROUNDWATER MONITORING WELL LOCATION AND CONSTRUCTION DETAILS

LANDFILL

A.B. BROWN GENERATING STATION

POSEY COUNTY, INDIANA

Well	Date Installed	Easting	Northing	Top of Pad Elevation (ft NAVD88)	Top of Riser Elevation (ft NAVD88)	Surface Grout (ft bgs)	Bentonite (ft bgs)	Sand Pack (ft bgs)	Screen Zone (ft bgs)	Screen Length (ft)	Well Radius (in.)	Status
Background Monitoring Wells												
CCR-BK-1R	March 2016	2770919.15	974083.30	480.10	483.39	2.0 - 50.0	50.0 - 52.0	52.0 - 64.0	54.00 - 64.00	10	2	Active
CCR-BK-2	March 2016	2769728.14	972854.33	427.50	430.60	1.0 - 11.5	11.5 - 13.5	13.5 - 25.5	15.50 - 25.50	10	2	Active
Landfill Monitoring Wells												
CCR-LF-1	March 2016	2771247.76	970812.18	432.80	435.63	0.0 - 3.0	3.0 - 7.0	7.0 - 19.0	9.00 - 19.00	10	2	Active
CCR-LF-2	March 2016	2772205.05	970681.32	470.10	473.00	1.0 - 30.0	30.0 - 32.0	32.0 - 45.0	35.00 - 45.00	10	2	Active
CCR-LF-3	March 2016	2773138.97	970949.70	482.00	484.75	1.0 - 21.0	21.0 - 23.0	23.0 - 35.0	25.00 - 35.00	10	2	Active
CCR-LF-4	March 2016	2772876.83	972312.24	476.60	478.85	1.0 - 40.8	40.8 - 43.0	43.0 - 55.0	45.00 - 55.00	10	2	Active
CCR-LF-5	March 2016	2772003.91	972228.16	427.50	430.41	1.0 - 16.0	16.0 - 18.0	18.0 - 30.0	20.00 - 30.00	10	2	Active
CCR-LF-6	March 2016	2771046.15	972269.53	409.20	412.05	0.0 - 0.0	0.0 - 2.66	2.66 - 9.66	4.66 - 9.66	5	2	Active

Notes:

bgs = below ground surface

ft = feet

in. = inches

Vertical Datum: North American Vertical Datum of 1988 (NAVD88)

TABLE 2
SUMMARY OF GROUNDWATER QUALITY DATA - MAY AND NOVEMBER 2025
LANDFILL
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

Location Group	Criteria	Background			
Location Name	GWPS	CCR-BK-1R	CCR-BK-1R	CCR-BK-2	CCR-BK-2
Sample Name		CCR-BK-1R-050725	CCR-BK-1R-110725	CCR-BK-2-050725	CCR-BK-2-110625
Sample Date		05/07/2025	11/07/2025	05/07/2025	11/06/2025
Lab Sample ID		180-190174-15	180-198316-18	180-190174-17	180-198316-10
Detection Monitoring - EPA Appendix III Constituents (mg/L)					
Boron, Total	NA	0.067 U	**1.5**	0.05 U	0.05 U
Calcium, Total	NA	**54**	**48**	**45**	**39**
Chloride	NA	**7.4**	**10**	**14**	**18**
Fluoride	4	**0.17**	**0.21**	**0.11**	**0.15**
pH (lab) (pH units)	NA	**7 J**	**6.9 J**	**6.9 J**	**6.8 J**
Sulfate	NA	**65**	**58**	**22**	**23**
Total Dissolved Solids (TDS)	NA	**280**	**300**	**260**	**240**
Assessment Monitoring - EPA Appendix IV Constituents (mg/L)					
Antimony, Total	0.006	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.01	0.005 U	0.005 U	0.005 U	0.005 U
Barium, Total	2	**0.12**	**0.1**	**0.035**	**0.032**
Beryllium, Total	0.004	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium, Total	0.005	0.001 U	0.001 U	0.001 U	0.001 U
Chromium, Total	0.1	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt, Total	0.006	**0.00036 J**	**0.00013 J**	0.001 U	0.001 U
Fluoride	4	**0.17**	**0.21**	**0.11**	**0.15**
Lead, Total	0.015	0.001 U	0.001 U	0.001 U	0.001 U
Lithium, Total	0.04	**0.016**	**0.0093**	0.008 U	0.008 U
Mercury, Total	0.002	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum, Total	0.1	**0.0021 J**	**0.0015 J**	0.005 U	**0.0014 J**
Selenium, Total	0.05	0.005 U	0.005 U	0.005 U	0.005 U
Thallium, Total	0.002	0.001 U	0.001 U	0.001 U	0.001 U
Radiological (pCi/L)					
Radium-226	NA	0.118 U ± 0.279	**0.308 ± 0.171**	0.0418 U ± 0.181	**0.259 ± 0.176**
Radium-228	NA	0.252 U ± 0.378	0.126 U ± 0.38	0.0814 U ± 0.328	0.392 U ± 0.418
Radium-226 & 228	5	0.37 U ± 0.47	0.434 UJ ± 0.417	0.123 U ± 0.375	0.65 UJ ± 0.454
Field Parameters					
Temperature (Deg C)	NA	**15.52**	**16.77**	**16.88**	**17.9**
Dissolved Oxygen, Field (mg/L)	NA	**2.55**	**4.7**	**0.93**	**0.61**
Conductivity, Field (mS/cm)	NA	**0.4**	**0.327**	**0.357**	**0.313**
Oxidation Reduction Potential (ORP), Field (mv)	NA	**271**	**242**	**312**	**140**
Turbidity, Field (NTU)	NA	**5.4**	**0**	**0**	**1.7**
pH, Field (pH units)	NA	**7.14**	**6.05**	**6.8**	**6.69**

Notes and Abbreviations:
CCR: Coal Combustion Residuals.
mg/L: milligram per liter.
pCi/L: picoCurie per liter.
Deg C: Degrees Celsius.
mS/cm: milliSiemen per centimeter.
mv: millivolts.
NTU: Nephelometric Turbidity Units.
U: not detected, value is the laboratory reporting limit.
J: value is estimated.
USEPA: United States Environmental Protection Agency.
GWPS: Ground Water Protection Standard.

*Results in **bold** are detected.*
Shaded values indicate an exceedance of the GWPS.
USEPA, 2020. Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities. December 14. 40 CFR Part 257. https://www.epa.gov/coalash/coal-ash-rule

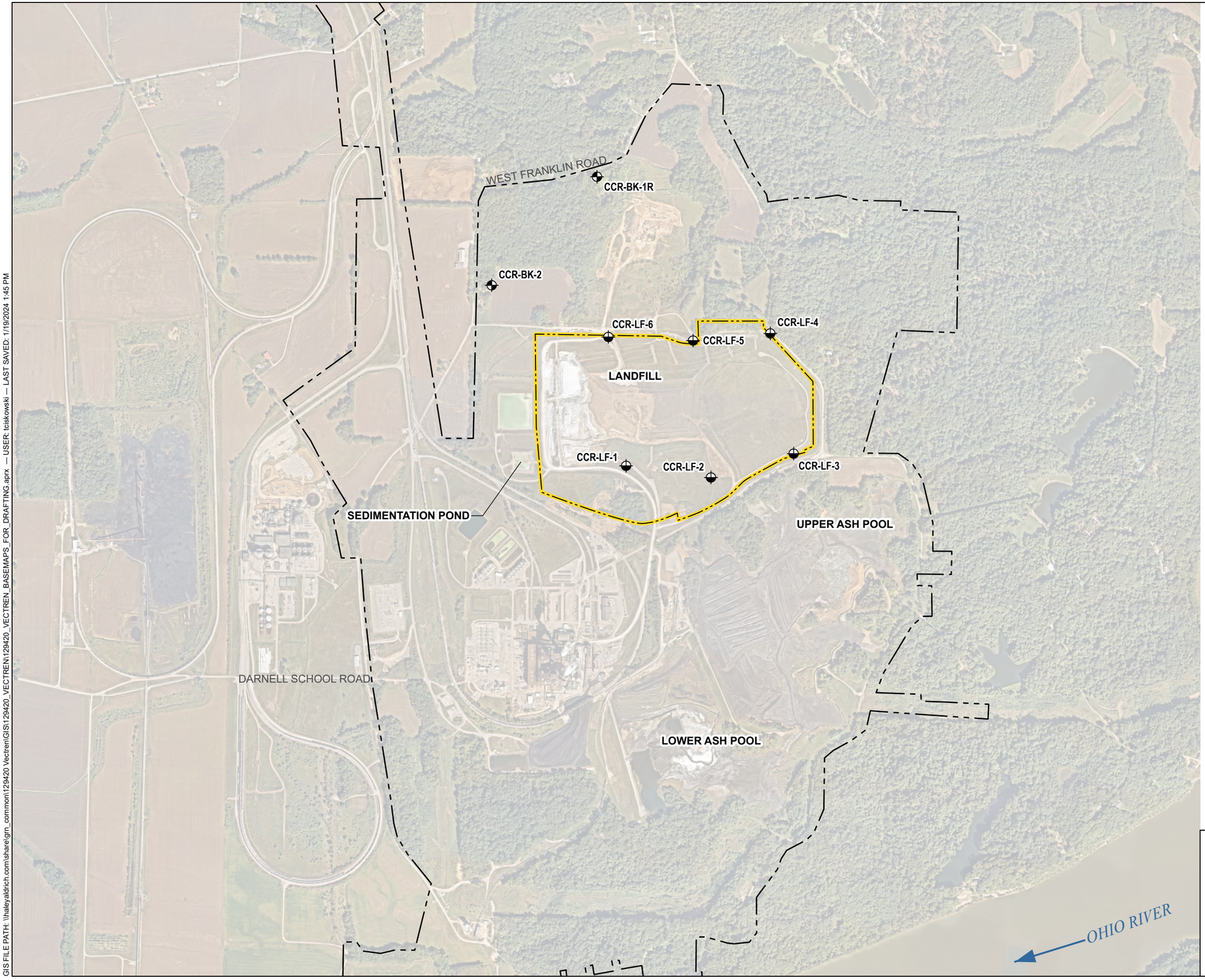
TABLE 2
SUMMARY OF GROUNDWATER QUALITY DATA - MAY AND NOVEMBER 2025
LANDFILL
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

Location Group	Criteria	Downgradient													
Location Name	GWPS	CCR-LF-1	CCR-LF-1	CCR-LF-2	CCR-LF-2	CCR-LF-2	CCR-LF-2	CCR-LF-3	CCR-LF-3	CCR-LF-4	CCR-LF-4	CCR-LF-5	CCR-LF-5	CCR-LF-6	CCR-LF-6
Sample Name		CCR-LF-1-050725	CCR-LF-1-110425	CCR-LF-2-050825	DUP-2-050825	CCR-LF-2-110425	DUP-2-110425	CCR-LF-3-050725	CCR-LF-3-110425	CCR-LF-4-050825	CCR-LF-4-110425	CCR-LF-5-050825	CCR-LF-5-110425	CCR-LF-6-050825	CCR-LF-6-110325
Sample Date		05/07/2025	11/04/2025	05/08/2025	05/08/2025	11/04/2025	11/04/2025	05/07/2025	11/04/2025	05/08/2025	11/04/2025	05/08/2025	11/04/2025	05/08/2025	11/03/2025
Lab Sample ID		180-190227-1	180-198160-2	180-190227-4	180-190227-3	180-198160-4	180-198160-7	180-190227-2	180-198160-3	180-190227-5	180-198160-6	180-190227-6	180-198160-5	180-190227-7	180-198160-1
Detection Monitoring - EPA Appendix III Constituents (mg/L)															
Boron, Total	NA	**0.044 J**	**0.073**	**5.2**	**5.3**	**5**	**5.1**	**0.22**	**0.26**	**0.51**	**0.51**	**1**	**1.1**	**0.52**	**0.55**
Calcium, Total	NA	**290**	**300**	**380**	**390**	**370**	**380**	**190**	**140**	**380**	**340**	**420**	**430**	**350**	**300**
Chloride	NA	**17**	**19**	**390**	**390**	**370**	**380**	**11**	**9.2**	**150**	**160**	**380**	**310**	**41**	**36**
Fluoride	4	0.1 U	**0.25**	1 U	1 U	**0.31 J**	**0.32 J**	**0.27**	**0.39**	1 U	**0.48 J**	**0.16 J**	**0.23 J**	**0.41**	**0.34**
pH (lab) (pH units)	NA	**6.8 J**	**6.8 J**	**6.6 J**	**6.5 J**	**6.6 J**	**6.8 J**	**7.3 J**	**7.4 J**	**6.7 J**	**6.9 J**	**6.9 J**	**7.1 J**	**7.1 J**	**7.2 J**
Sulfate	NA	**1100**	**1100**	**16000**	**16000**	**15000**	**18000**	**700**	**570**	**11000**	**13000**	**2300**	**2700**	**1100**	**1100**
Total Dissolved Solids (TDS)	NA	**1900**	**2100**	**23000**	**23000**	**23000**	**23000**	**1500**	**1200**	**16000**	**15000**	**4300**	**5000**	**1800**	**1900**
Assessment Monitoring - EPA Appendix IV Constituents (mg/L)															
Antimony, Total	0.006	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic, Total	0.01	0.005 U	**0.0012 J**	**0.001 J**	**0.0011 J**	**0.0014 J**	**0.0012 J**	0.005 U	0.005 U	**0.02**	**0.022**	0.005 U	0.005 U	0.005 U	0.005 U
Barium, Total	2	**0.031**	**0.086**	**0.011**	**0.011**	**0.011**	**0.011**	**0.019**	**0.021**	**0.0097**	**0.011**	**0.021**	**0.024**	**0.023**	**0.023**
Beryllium, Total	0.004	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	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium, Total	0.005	0.001 U	**0.000088 J**	**0.0048**	**0.0048**	**0.0054**	**0.0053**	0.001 U	0.001 U	0.001 U	0.001 U	**0.00027 J**	**0.00025 J**	**0.00013 J**	**0.00032 J**
Chromium, Total	0.1	0.005 U	**0.0016 J**	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt, Total	0.006	0.001 U	**0.00045 J**	**0.011**	**0.011**	**0.013**	**0.013**	0.001 U	0.001 U	**0.0012**	**0.00093 J**	**0.00011 J**	**0.00014 J**	**0.00014 J**	**0.00035 J**
Fluoride	4	0.1 U	**0.25**	1 U	1 U	**0.31 J**	**0.32 J**	**0.27**	**0.39**	1 U	**0.48 J**	**0.16 J**	**0.23 J**	**0.41**	**0.34**
Lead, Total	0.015	0.001 U	**0.00079 J**	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	0.001 U	0.001 U	0.001 U
Lithium, Total	0.04	0.008 U	**0.0058 J**	**0.016**	**0.015**	**0.018**	**0.018**	0.008 U	0.008 U	**0.083**	**0.081**	**0.016**	**0.02**	**0.013**	**0.018**
Mercury, Total	0.002	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	**0.00016 J**	**0.00022**	0.0002 U	0.0002 U
Molybdenum, Total	0.1	0.005 U	**0.0021 J**	**0.0025 J**	**0.0027 J**	**0.0027 J**	**0.0025 J**	**0.0037 J**	**0.0023 J**	**0.028**	**0.026**	0.005 U	0.005 U	**0.0022 J**	**0.0018 J**
Selenium, Total	0.05	0.005 U	0.005 U	**0.0021 J**	**0.0029 J**	**0.0034 J**	**0.0023 J**	0.005 U	0.005 U	0.005 U	**0.0011 J**	0.005 U	0.005 U	**0.0014 J**	**0.0014 J**
Thallium, Total	0.002	0.001 U	0.001 U	**0.0006 J**	**0.00063 J**	**0.00066 J**	**0.00068 J**	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Radiological (pCi/L)															
Radium-226	NA	0.294 U ± 0.235	**0.635 J ± 0.295**	**0.653 ± 0.301**	**0.385 ± 0.255**	0.33 UJ ± 0.29	**0.641 J ± 0.348**	0.0253 U ± 0.159	0.0533 UJ ± 0.176	**3.48 ± 0.649**	**3.79 J ± 0.686**	0.0437 U ± 0.151	0.128 UJ ± 0.17	0.0935 U ± 0.16	0.121 UJ ± 0.176
Radium-228	NA	0.255 U ± 0.347	0.227 U ± 0.53	**3.36 ± 0.715**	**3.18 ± 0.72**	**2.83 ± 0.812**	**2.27 ± 0.788**	0.495 U ± 0.378	0.534 U ± 0.409	**1.86 ± 0.541**	**1.94 ± 0.678**	0.173 U ± 0.313	0.478 U ± 0.508	0.0726 U ± 0.347	0.222 U ± 0.441
Radium-226 & 228	5	0.549 U ± 0.419	0.862 UJ ± 0.607	**4.01 ± 0.776**	**3.56 ± 0.764**	**3.16 J ± 0.862**	**2.91 J ± 0.861**	0.52 U ± 0.41	0.587 UJ ± 0.445	**5.34 ± 0.845**	**5.73 J ± 0.965**	0.217 U ± 0.348	0.606 UJ ± 0.536	0.166 U ± 0.382	0.344 UJ ± 0.475
Field Parameters															
Temperature (Deg C)	NA	**16.57**	**20.36**	**16.36**	**16.36**	**18.32**	**18.32**	**17.03**	**19.93**	**15.87**	**17.99**	**15.97**	**19.97**	**14.88**	**19.46**
Dissolved Oxygen, Field (mg/L)	NA	**2.53**	**1.37**	**0.27**	**0.27**	**0.32**	**0.32**	**5.68**	**7.27**	**0.72**	**0.54**	**0.44**	**0.99**	**1.7**	**5.08**
Conductivity, Field (mS/cm)	NA	**2.03**	**2.36**	**24.7**	**24.7**	**26.2**	**26.2**	**1.63**	**1.36**	**18.2**	**20.6**	**5.21**	**5.17**	**1.96**	**1.77**
Oxidation Reduction Potential (ORP), Field (mv)	NA	**193**	**184**	**87**	**87**	**141**	**141**	**309**	**135**	**-6**	**-44**	**239**	**132**	**310**	**148**
Turbidity, Field (NTU)	NA	**2.3**	**125**	**2.4**	**2.4**	**6.7**	**6.7**	**0**	**1.3**	**9.3**	**5.9**	**3.2**	**4.8**	**0.9**	**8.1**
pH, Field (pH units)	NA	**6.51**	**6.7**	**6.38**	**6.38**	**6.41**	**6.41**	**7.39**	**7.35**	**6.72**	**6.6**	**6.96**	**7.12**	**7.12**	**7.06**

Notes and Abbreviations:
CCR: Coal Combustion Residuals.
mg/L: milligram per liter.
pCi/L: picoCurie per liter.
Deg C: Degrees Celsius.
mS/cm: milliSiemen per centimeter.
mv: millivolts.
NTU: Nephelometric Turbidity Units.
U: not detected, value is the laboratory reporting limit.
J: value is estimated.
USEPA: United States Environmental Protection Agency.
GWPS: Ground Water Protection Standard.

*Results in **bold** are detected.*
Shaded values indicate an exceedance of the GWPS.
USEPA, 2020. Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities. December 14. 40 CFR Part 257. https://www.epa.gov/coalash/coal-ash-rule

FIGURES



LEGEND

- DOWNGRADIENT GROUNDWATER MONITORING WELL
- UPGRADIENT GROUNDWATER MONITORING WELL
- PROPERTY BOUNDARY
- APPROXIMATE UNIT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. UNIT BOUNDARY SHOWN IS PERMITTED SOLID WASTE FACILITY BOUNDARY IDEM VFC#15365784
3. AERIAL IMAGERY SOURCE: HEXAGON, JULY 21, 2023

N

0 1,100 2,200
SCALE IN FEET

HALEY ALDRICH

LANDFILL
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

GROUNDWATER MONITORING WELL LOCATIONS - LANDFILL

JANUARY 2026

FIGURE 1

CCR-BK-1R
421.87
CCR-BK-2
413.57
CCR-LF-6
404.87
CCR-LF-5
409.17
CCR-LF-4
431.17
CCR-SP-1R
393.36
CCR-SP-2
389.68
CCR-SP-3
398.07
CCR-LF-1
428.69
CCR-LF-3
453.55
CCR-LF-2
445.37
CCR-AP-7R
453.39
CCR-AP-6
445.63
CCR-AP-8
413.62
FD-PZ-2
420.49
CCR-AP-2R
418.73
FD-PZ-1
410.81
FD-PZ-3S
FD-PZ-3D
CCR-AP-2IR
FD-PZ-4
408.67
CCR-AP-5R
416.49
CCR-AP-1R
449.10
CMA-01
413.48
CMA-01I
CMA-02
409.53
CMA-02I
CMA-03
408.22
CMA-03I
CCR-AP-11
367.34
CCR-AP-9
383.19
CMA-06
385.32
CMA-06BR
CMA-04BR
CMA-04I
HA-PP-1
379.20
CMA-06I
CMA-04
410.69
HA-PP-2
379.23
CMA-07I
404.25
CCR-AP-4R
441.35
CMA-08I
407.95
CCR-AP-3I
CCR-AP-3R
408.73
CCR-AP-10
437.49
CMA-05
414.75
CMA-05I
420
410
450
V = 87 FT/YR
V = 58 FT/YR
440
430
420
410
400
390
380
370
450
V = 56 FT/YR
V = 52 FT/YR
440
DARNELL SCHOOL ROAD
OHIO RIVER
351.2 FT
NAVD88

LEGEND

- UPGRADIENT MONITORING WELL
- DOWNGRADIENT MONITORING WELL
- PIEZOMETER
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR, 10-FT INTERVAL, DASHED WHERE INFERRED
- PROPERTY BOUNDARY
- UNIT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. VERTICAL DATUM: NAVD88 = NORTH AMERICAN VERTICAL DATUM 1988

3. WATER LEVELS GAGED MAY 5, 2025

4. OHIO RIVER STAGE MEASURED ON MAY 5, 2025 BY USGS GAGE 03322190 AT HENDERSON, KY, APPROXIMATELY 13.5 MILES UPSTREAM FROM A.B. BROWN GENERATING STATION.

5. GROUNDWATER VELOCITY SHOWN IN FEET PER YEAR

6. $V = \frac{k(i)}{ne}$
   V = GROUNDWATER VELOCITY (FT/YR)
   K = HYDRAULIC CONDUCTIVITY (FT/YR)
   i = GROUNDWATER GRADIENT
   ne = EFFECTIVE POROSIT
   ND = NO DATA

7. AERIAL IMAGERY SOURCE: NEARMAP, OCTOBER 11, 2025

N

0 1,100 2,200
SCALE IN FEET

HALEY ALDRICH

LANDFILL
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

SHALLOW GROUNDWATER ELEVATION CONTOURS - LANDFILL - MAY 5, 2025

JANUARY 2026

FIGURE 2

CCR-BK-1R
ND

CCR-BK-2
ND

CCR-LF-4
430.88

CCR-LF-6
404.21

CCR-LF-5
408.30

V = 88 FT/YR

CCR-LF-3
453.36

CCR-SP-1R
391.57

CCR-SP-2
388.25

CCR-SP-3
395.53

CCR-LF-1
426.69

CCR-LF-2
444.49

CCR-AP-7R
451.93

V = 87 FT/YR

CCR-AP-6
441.97

CCR-AP-8
412.63

FD-PZ-5
411.87

FD-PZ-2
418.33

CCR-AP-2IR

CCR-AP-2R
ND

FD-PZ-1
410.50

FD-PZ-6
427.10

FD-PZ-4
408.09

FD-PZ-3S
409.53

FD-PZ-3D

DARNELL SCHOOL ROAD

V = 58 FT/YR

CMA-01
411.82

CCR-AP-11
362.44

CMA-01I

CCR-AP-5R
414.51

CMA-03I

CMA-02I

CMA-03
405.40

CMA-02
407.38

CCR-AP-1R
445.23

CCR-AP-9
381.17

CMA-04I

CMA-04BR

CMA-04
409.56

HA-PP-1
379.19

CMA-06
380.55

CMA-05I

HA-PP-2
378.03

CMA-05
410.69

V = 53 FT/YR

CCR-AP-4R
436.45

CMA-06BR

CMA-06I

CCR-AP-10
ND

CMA-07I
398.85

CCR-AP-3R
ND

CMA-08I
401.26

CCR-AP-3I

OHIO RIVER
342.85 FT
NAVD88

365 375 385 395 405 415 425 435 445

LEGEND

- UPGRADIENT MONITORING WELL
- DOWNGRADIENT MONITORING WELL
- PIEZOMETER
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR, 10-FT INTERVAL, DASHED WHERE INFERRED
- PROPERTY BOUNDARY
- UNIT BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

2. VERTICAL DATUM: NAVD88 = NORTH AMERICAN VERTICAL ATUM 1988

3. WATER LEVELS GAGED NOVEMBER 3, 2025

4. OHIO RIVER STAGE MEASURED ON NOVEMBER 3, 2025 AT 12:00 PM BY USGS GAGE 03322190 AT HENDERSON, KY, APPROXIMATELY 13.5 MILES UPSTREAM FROM A.B. BROWN GENERATING STATION.

5. GROUNDWATER VELOCITY SHOWN IN FEET PER YEAR

6. $V = \frac{k(i)}{ne}$
   V = GROUNDWATER VELOCITY (FT/YR)
   K = HYDRAULIC CONDUCTIVITY (FT/YR)
   i = GROUNDWATER GRADIENT
   ne = EFFECTIVE POROSIT
   ND = NO DATA

7. AERIAL IMAGERY SOURCE: NEARMAP, OCTOBER 11, 2025

N

0 1,100 2,200
SCALE IN FEET

HALEY ALDRICH

LANDFILL
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

SHALLOW GROUNDWATER ELEVATION CONTOURS - LANDFILL - NOVEMBER 3, 2025

JANUARY 2026

FIGURE 3

APPENDIX A
Summary of Statistical Analysis

HALEY & ALDRICH, INC.
400 Augusta Street
Suite 100
Greenville, SC. 29601
864.214.8771

TECHNICAL MEMORANDUM

12 March 2025
File No. 0129420-027

TO: Southern Indiana Gas and Electric Company

FROM: Haley & Aldrich, Inc.
Todd Plating, Program Manager, Geologist
Steven F. Putrich, P.E., Project Principal

SUBJECT: Statistical Evaluation of the November 2024 Semi-Annual Groundwater Assessment Monitoring Data
Southern Indiana Gas and Electric Company
Landfill
A.B. Brown Generating Station; Posey County, Indiana

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and § 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the November 2024 semi-annual assessment monitoring event for the A.B. Brown Generating Station Landfill. Haley & Aldrich, Inc. (Haley & Aldrich) completed this statistical evaluation to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at statistically significant levels (SSL) greater than the Groundwater Protection Standards (GWPS), consistent with the requirements in 40 CFR § 257.95.

Methods used during this statistical analysis are described in Haley & Aldrich's 2017 *Statistical Data Analysis Plan for the A.B. Brown Generating Station Landfill*. A summary of how applicable performance standards described in 40 CFR § 257.93 (g) were achieved include:

- 40 CFR § 257.93 (g) (1) – Data set distributions were evaluated using basic summary statistics, graphical methods including probability plots, and the Shapiro-Wilk Test for Normality. Data sets were also evaluated for statistical outliers using box plots and either Dixon's Q Test for Outliers or Rosner's Outlier Test depending on sample size. Outlier identification and data set distribution groups are summarized in Attachment A. For background limit calculations, parametric methods were used for normally distributed data sets and non-parametric methods were used for non-normally distributed data sets.
- 40 CFR § 257.93 (g) (2) – Not applicable

- 40 CFR § 257.93 (g) (3) – Not applicable
- 40 CFR § 257.93 (g) (4) – Levels of confidence and additional supporting information for the use of tolerance intervals and prediction limits are included in Attachment A.
- 40 CFR § 257.93 (g) (5) – Non-detect values were accounted for by simple substitution, where the detection limit replaced the non-detect result. Non-detect values are identified and summarized in Attachment A.
- 40 CFR § 257.93 (g) (6) – Time series plots for groundwater monitoring wells included in this evaluation were reviewed to identify potential seasonal variability. No additional statistics to account for seasonality or spatial variability were necessary. Temporal trends were evaluated using the non-parametric Mann-Kendall Trend Test and Theil-Sen Estimator.

Data from the groundwater sampling event for the downgradient monitoring wells (CCR-LF-1 through CCR-LF-6) were compared to the GWPS established from the background dataset for the upgradient monitoring wells (CCR-BK-1 and CCR-BK-2) for detected Appendix IV constituents. The GWPS for each of the Appendix IV constituents has been set equal to the highest value among the maximum contaminant level (MCL), regional screening level (RSL), or background threshold value (BTV). The results of the assessment monitoring statistical evaluation are discussed below and provided in Attachment A.

Development of Groundwater Protection Standards

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). Haley & Aldrich certified the tolerance limit (TL) as the statistical method used for developing BTVs on 14 January 2019. An alternate source demonstration was performed for arsenic, cobalt, and lithium on 24 July 2019, certifying the prediction limit (PL) as the statistical method for developing BTVs. As noted above, the GWPS for each of the Appendix IV constituents has been set equal to the highest value among the MCL, RSL, or BTV (either the TL or PL). The most recent groundwater sampling result from each compliance well was compared to the GWPS to determine if additional statistical testing is warranted.

STATISTICAL EVALUATION

BTVs are periodically updated per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009* (Unified Guidance). Prior to calculating BTVs, data were evaluated for outlier results, data distribution, and spatial and temporal variability. Potential outlier sample results that would warrant removal from the data set based on likely error in sampling or measurement were identified through statistical outlier using the outliers (version 0.15) R programming package and either the Dixon's or Rosner's Test for Outliers. Potential outliers were further evaluated by visual inspection of box plots and probability plots, and field forms and analytical laboratory reports were reviewed as necessary. No sample data were identified as outliers that warranted removal from the dataset.

Background data distributions were assessed using the stats (version 4.3.3) R programming package and either the Shapiro-Wilk or Shapiro-Francia Test for Normality. Data distributions were further evaluated

by visual inspection of probability and distribution plots. Data distributions inform appropriate BTV calculation methods. Background and downgradient data sets were evaluated for spatial and temporal variability by visual inspection of box plots and time series plots and using the Mann-Kendall Trend Tests (Kendall R programming package, version 2.2.1) and Theil-Sen Estimator (trend R programming package, version 1.1.6). Spatial and temporal variability in background data sets inform appropriate BTV calculation methods.

Interwell Background Evaluation

An interwell statistical evaluation was used to determine the TL and identify potential SSLs for detected Appendix IV constituents, except arsenic, cobalt, and lithium. The interwell evaluation compares the most recent value from downgradient compliance wells to a background dataset composed of pooled upgradient well data. TLs were calculated from the pooled background well dataset utilizing R programming language and the EnvStats (version 2.8.1) and tolerance (version 2.0.0) packages. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used. Parametric TLs utilize normally distributed data or data normalized via a transformation of the background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit serve as an appropriate UTL.

Intrawell Background Evaluation

An intrawell statistical evaluation was used for arsenic, cobalt, and lithium, to determine the PL and identify potential SSLs. The intrawell evaluation compares the most recent data point from each downgradient compliance well to its well-specific background dataset, composed of data collected from the same well prior to the most recent sampling event. PLs were calculated from the well-specific background dataset utilizing R programming language and the stats (version 4.3.3) package. The PL procedure is one in which a concentration limit for each constituent at each downgradient well is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a prediction interval is called the UPL. Depending on the data distribution, parametric or non-parametric PL procedures are used. Parametric PLs utilize normally distributed data or data normalized via a transformation of the background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the PL. Note that the PL accounts for future variability based on existing data, so it is possible for the PL to be greater than the maximum measured background concentration.

GWPS Comparison and LCL Calculations

The lower confidence limit (LCL) was calculated for any Appendix IV constituent measured in a downgradient well during the November 2024 sampling event at a concentration greater than the GWPS. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn.

The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error. An SSL is indicated when the downgradient well/constituent-specific LCL is greater than the GWPS.

TREND SUMMARY

Mann-Kendall trend analyses were performed on data sets from downgradient wells of sufficient sample size as described above. Results of the trend analysis are summarized in Table 1. Trends indicated for constituents identified as SSLs are summarized below:

- No SSLs were identified during the November 2024 sampling event.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the November 2024 monitoring event were compared to their respective GWPS (Attachment A). LCLs were calculated where constituents were detected at concentrations greater than the GWPS. An SSL is indicated when the LCL is greater than the GWPS. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were used to evaluate constituents not subject to an Alternative Source Demonstration (ASD) in downgradient monitoring wells. Because a successful ASD was completed for cobalt, arsenic, and lithium, an intrawell statistical analysis was used to evaluate those constituents.

The results of the statistical analyses conducted for detected Appendix IV constituents confirm that no SSL greater than the GWPS was identified at the Landfill, however, the Landfill will remain in Assessment Monitoring.

Enclosure

Table 1 – Trend Summary
Attachment A – Assessment Monitoring Statistical Analysis Summary – November 2024

TABLES

Table 1. Trend Summary

Location	Chemical	Units	Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
			Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-LF-4	Arsenic, Total	mg/L	Increasing	Stable	23	23	0.035	0.00127	8	8	0.035	NA
CCR-LF-6	Barium, Total	mg/L	Increasing	No Trend	23	23	0.098	0.00122	8	8	0.098	NA
CCR-LF-2	Cadmium, Total	mg/L	Increasing	Stable	23	22	0.025	0.000525	8	8	0.0099	NA
CCR-LF-5	Cadmium, Total	mg/L	Increasing	Stable	23	19	0.01	1.65e-05	8	6	0.001	NA
CCR-LF-1	Cobalt, Total	mg/L	Increasing	Not Evaluated - Majority of data (>50%) non-detect	23	14	0.001	5.97e-05	8	3	0.001	NA
CCR-LF-2	Cobalt, Total	mg/L	Increasing	Stable	23	23	0.014	0.000565	8	8	0.013	NA
CCR-LF-5	Mercury, Total	mg/L	Increasing	No Trend	22	16	0.00041	1.4e-05	8	7	0.00041	NA
CCR-LF-4	Molybdenum, Total	mg/L	Increasing	No Trend	23	22	0.029	0.000846	8	8	0.029	NA
CCR-BK-1	Radium-226 & 228	pCi/L	Increasing	Stable	20	11	2.46	0.0673	8	5	2.46	NA
CCR-LF-2	Radium-226 & 228	pCi/L	Increasing	Stable	22	22	3.87	0.154	8	8	3.87	NA
CCR-LF-2	Lead, Total	mg/L	No Trend	Increasing	22	13	0.025	NA	8	6	0.0014	0.000218
CCR-LF-4	Lithium, Total	mg/L	Stable	Increasing	23	23	0.12	NA	8	8	0.099	0.0117
CCR-BK-1	Molybdenum, Total	mg/L	Stable	Increasing	22	20	0.005	NA	8	8	0.0025	0.000588
CCR-BK-1	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.002	NA	8	0	0.002	NA
CCR-BK-2	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	2	0.002	NA	8	1	0.002	NA
CCR-LF-1	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	4	0.002	NA	8	3	0.002	NA
CCR-LF-2	Antimony, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	0.05	NA	8	0	0.002	NA
CCR-LF-3	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	2	0.002	NA	8	0	0.002	NA
CCR-LF-4	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.02	NA	8	0	0.002	NA
CCR-LF-5	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	2	0.02	NA	8	1	0.002	NA
CCR-LF-6	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	2	0.002	NA	8	1	0.002	NA
CCR-BK-1	Arsenic, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	22	13	0.005	NA	8	2	0.005	NA
CCR-BK-2	Arsenic, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	9	0.005	NA	8	2	0.005	NA
CCR-LF-1	Arsenic, Total	mg/L	No Trend	No Trend	23	17	0.005	NA	8	6	0.005	NA
CCR-LF-2	Arsenic, Total	mg/L	No Trend	No Trend	23	17	0.025	NA	8	8	0.0023	NA
CCR-LF-3	Arsenic, Total	mg/L	No Trend	No Trend	23	14	0.0088	NA	8	4	0.005	NA
CCR-LF-5	Arsenic, Total	mg/L	Probably Increasing	Not Evaluated - Majority of data (>50%) non-detect	23	12	0.015	NA	8	2	0.005	NA
CCR-LF-6	Arsenic, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	11	0.0097	NA	8	2	0.005	NA
CCR-BK-1	Barium, Total	mg/L	Probably Increasing	No Trend	23	23	0.087	NA	8	8	0.087	NA
CCR-BK-2	Barium, Total	mg/L	Stable	Decreasing	23	23	0.15	NA	8	8	0.049	-0.00269
CCR-LF-1	Barium, Total	mg/L	Stable	Stable	23	23	0.17	NA	8	8	0.17	NA
CCR-LF-2	Barium, Total	mg/L	No Trend	Stable	21	19	0.25	NA	8	8	0.015	NA
CCR-LF-3	Barium, Total	mg/L	Decreasing	No Trend	23	23	0.03	-0.00154	8	8	0.02	NA
CCR-LF-4	Barium, Total	mg/L	No Trend	Probably Increasing	21	19	0.1	NA	8	8	0.023	NA
CCR-LF-5	Barium, Total	mg/L	Decreasing	No Trend	23	23	0.037	-0.000358	8	8	0.037	NA
CCR-BK-1	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.001	NA	8	0	0.001	NA
CCR-BK-2	Beryllium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	3	0.001	NA	8	1	0.001	NA
CCR-LF-1	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.001	NA	8	0	0.001	NA
CCR-LF-2	Beryllium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	4	0.025	NA	8	0	0.001	NA
CCR-LF-3	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.001	NA	8	0	0.001	NA
CCR-LF-4	Beryllium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	5	0.01	NA	8	1	0.001	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

			Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
Location	Chemical	Units	Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-LF-5	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	21	1	0.001	NA	8	1	0.001	NA
CCR-LF-6	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	21	1	0.001	NA	8	1	0.001	NA
CCR-BK-1	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.001	NA	8	1	0.001	NA
CCR-BK-2	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.001	NA	8	1	0.001	NA
CCR-LF-1	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.001	NA	8	1	0.001	NA
CCR-LF-3	Cadmium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	4	0.001	NA	8	0	0.001	NA
CCR-LF-4	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	23	1	0.01	NA	8	0	0.001	NA
CCR-LF-6	Cadmium, Total	mg/L	Probably Increasing	No Trend	23	16	0.0047	NA	8	5	0.0047	NA
CCR-BK-1	Chromium, Total	mg/L	No Trend	No Trend	22	15	0.0076	NA	8	4	0.005	NA
CCR-BK-2	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	6	0.0087	NA	8	2	0.005	NA
CCR-LF-1	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	11	0.0062	NA	8	2	0.005	NA
CCR-LF-2	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	6	0.05	NA	8	0	0.005	NA
CCR-LF-3	Chromium, Total	mg/L	No Trend	No Trend	22	14	0.005	NA	8	4	0.005	NA
CCR-LF-4	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	0.02	NA	8	1	0.0082	NA
CCR-LF-5	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	8	0.022	NA	8	1	0.005	NA
CCR-LF-6	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	3	0.007	NA	8	1	0.007	NA
CCR-BK-1	Cobalt, Total	mg/L	Stable	Not Evaluated - Majority of data (>50%) non-detect	22	16	0.0028	NA	8	3	0.001	NA
CCR-BK-2	Cobalt, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	10	0.0062	NA	8	2	0.0015	NA
CCR-LF-3	Cobalt, Total	mg/L	Stable	Not Evaluated - Majority of data (>50%) non-detect	22	13	0.001	NA	8	2	0.001	NA
CCR-LF-4	Cobalt, Total	mg/L	Stable	No Trend	23	23	0.0018	NA	8	8	0.0015	NA
CCR-LF-5	Cobalt, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	23	14	0.005	NA	8	3	0.0013	NA
CCR-LF-6	Cobalt, Total	mg/L	Probably Increasing	No Trend	22	18	0.016	NA	8	6	0.016	NA
CCR-BK-1	Fluoride	mg/L	Decreasing	Decreasing	22	20	0.38	-0.0141	8	7	0.36	-0.0602
CCR-BK-2	Fluoride	mg/L	Stable	Stable	21	18	0.34	NA	8	6	0.34	NA
CCR-LF-1	Fluoride	mg/L	Stable	Stable	22	19	0.32	NA	8	7	0.32	NA
CCR-LF-2	Fluoride	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Decreasing	22	6	25	NA	8	6	4.2	-0.797
CCR-LF-3	Fluoride	mg/L	Stable	Stable	20	18	0.34	NA	8	7	0.34	NA
CCR-LF-4	Fluoride	mg/L	Decreasing	No Trend	23	12	2.5	-0.0436	8	8	1.9	NA
CCR-LF-5	Fluoride	mg/L	No Trend	Stable	21	17	1	NA	8	8	0.3	NA
CCR-LF-6	Fluoride	mg/L	No Trend	Probably Increasing	22	22	0.51	NA	8	8	0.44	NA
CCR-BK-1	Lead, Total	mg/L	No Trend	No Trend	23	18	0.0011	NA	8	4	0.001	NA
CCR-BK-2	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	8	0.011	NA	8	2	0.0024	NA
CCR-LF-1	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	10	0.0019	NA	8	3	0.0019	NA
CCR-LF-3	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.001	NA	8	0	0.001	NA
CCR-LF-4	Lead, Total	mg/L	No Trend	No Trend	22	11	0.079	NA	8	5	0.0031	NA
CCR-LF-5	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	8	0.01	NA	8	1	0.0011	NA
CCR-LF-6	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	0.0032	NA	8	1	0.0032	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

Location	Chemical	Units	Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
			Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-BK-1	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	8	0.05	NA	8	5	0.011	NA
CCR-BK-2	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Stable	23	6	0.05	NA	8	5	0.008	NA
CCR-LF-1	Lithium, Total	mg/L	Decreasing	No Trend	23	14	0.05	-0.00132	8	7	0.008	NA
CCR-LF-2	Lithium, Total	mg/L	Decreasing	No Trend	23	18	0.25	-0.00126	8	8	0.019	NA
CCR-LF-3	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	0.05	NA	8	1	0.008	NA
CCR-LF-5	Lithium, Total	mg/L	Stable	No Trend	23	22	0.05	NA	8	8	0.024	NA
CCR-LF-6	Lithium, Total	mg/L	Decreasing	Stable	23	23	0.023	-0.000673	8	8	0.019	NA
CCR-BK-1	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0002	NA	8	0	0.0002	NA
CCR-BK-2	Mercury, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.0002	NA	8	0	0.0002	NA
CCR-LF-1	Mercury, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	1	0.0002	NA	8	1	0.0002	NA
CCR-LF-2	Mercury, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	1	0.0002	NA	8	1	0.0002	NA
CCR-LF-3	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0002	NA	8	0	0.0002	NA
CCR-LF-4	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0002	NA	8	0	0.0002	NA
CCR-LF-6	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0002	NA	8	0	0.0002	NA
CCR-BK-2	Molybdenum, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	10	0.005	NA	8	4	0.005	NA
CCR-LF-1	Molybdenum, Total	mg/L	Stable	No Trend	23	20	0.005	NA	8	7	0.005	NA
CCR-LF-2	Molybdenum, Total	mg/L	No Trend	No Trend	22	16	0.13	NA	8	8	0.0031	NA
CCR-LF-3	Molybdenum, Total	mg/L	No Trend	No Trend	22	18	0.0056	NA	8	5	0.005	NA
CCR-LF-5	Molybdenum, Total	mg/L	No Trend	No Trend	23	15	0.05	NA	8	7	0.005	NA
CCR-LF-6	Molybdenum, Total	mg/L	Stable	No Trend	22	18	0.0066	NA	8	8	0.0066	NA
CCR-BK-2	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	5	2.48431212121212	NA	8	2	2.09431212121212	NA
CCR-LF-1	Radium-226 & 228	pCi/L	No Trend	No Trend	19	18	8.07	NA	8	7	8.07	NA
CCR-LF-3	Radium-226 & 228	pCi/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	22	11	1.68	NA	8	3	1.68	NA
CCR-LF-4	Radium-226 & 228	pCi/L	Stable	No Trend	22	22	8.14	NA	8	8	6.79	NA
CCR-LF-5	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	6	2.78	NA	8	3	2.78	NA
CCR-LF-6	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	6	6.53	NA	8	2	6.53	NA
CCR-BK-1	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	0.005	NA	8	1	0.005	NA
CCR-BK-2	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	3	0.005	NA	8	1	0.005	NA
CCR-LF-1	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	5	0.005	NA	8	1	0.005	NA
CCR-LF-2	Selenium, Total	mg/L	No Trend	Stable	22	16	0.13	NA	8	8	0.0066	NA
CCR-LF-3	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	10	0.005	NA	8	0	0.005	NA
CCR-LF-4	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Decreasing	22	7	0.05	NA	8	4	0.005	-0.00123
CCR-LF-5	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.05	NA	8	3	0.005	NA
CCR-LF-6	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Stable	22	8	0.005	NA	8	6	0.005	NA
CCR-BK-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.001	NA	8	0	0.001	NA
CCR-BK-2	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.001	NA	8	2	0.001	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

			Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
Location	Chemical	Units	Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-LF-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	3	0.001	NA	8	2	0.001	NA
CCR-LF-2	Thallium, Total	mg/L	No Trend	No Trend	21	14	0.025	NA	8	8	0.0013	NA
CCR-LF-3	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	6	0.001	NA	8	0	0.001	NA
CCR-LF-4	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	4	0.01	NA	8	0	0.001	NA
CCR-LF-5	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	4	0.01	NA	8	1	0.001	NA
CCR-LF-6	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	4	0.001	NA	8	2	0.001	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

ATTACHMENT A
Assessment Monitoring Statistical Analysis Summary – November 2024

Table A-1. Descriptive Statistics

Location	Constituent	Units	n	n, non-detects	percent of non-detects	max	min	mean	median	standard deviation	variance	reporting limit range	date range
CCR-BK-1	Antimony, Total	mg/L	22	20	91	0.00200	5.6e-05	0.00184	0.002	0.00052	2.7e-07	0.002 - 0.002	2016-08-11 to 2024-11-07
CCR-BK-2	Antimony, Total	mg/L	22	20	91	0.00200	0.00048	0.00187	0.002	0.00043	1.8e-07	0.002 - 0.002	2016-06-08 to 2024-11-06
CCR-LF-1	Antimony, Total	mg/L	21	17	81	0.00200	0.00058	0.00173	0.002	0.00057	3.2e-07	0.002 - 0.002	2016-06-08 to 2024-11-07
CCR-LF-2	Antimony, Total	mg/L	21	20	95	0.05000	0.002	0.00772	0.002	0.012	0.00015	0.002 - 0.05	2016-06-08 to 2024-11-08
CCR-LF-3	Antimony, Total	mg/L	21	19	90	0.00200	0.00066	0.00189	0.002	0.00034	1.2e-07	0.002 - 0.002	2016-06-08 to 2024-11-07
CCR-LF-4	Antimony, Total	mg/L	21	21	100	0.02000	0.002	0.00543	0.002	0.0072	5.2e-05	0.002 - 0.02	2016-06-07 to 2024-11-07
CCR-LF-5	Antimony, Total	mg/L	21	19	90	0.02000	0.00055	0.00272	0.002	0.004	1.6e-05	0.002 - 0.02	2016-06-08 to 2024-11-07
CCR-LF-6	Antimony, Total	mg/L	21	19	90	0.00200	0.00086	0.0019	0.002	0.00031	9.6e-08	0.002 - 0.002	2016-06-08 to 2024-11-08
Pooled Background	Antimony, Total	mg/L	44	40	91	0.00200	5.6e-05	0.00185	0.002	0.00047	2.2e-07	0.002 - 0.002	2016-06-08 to 2024-11-07
CCR-BK-1	Arsenic, Total	mg/L	22	9	41	0.00500	0.00021	0.00129	0.001	0.0013	1.7e-06	0.001 - 0.005	2016-08-11 to 2024-11-07
CCR-BK-2	Arsenic, Total	mg/L	23	14	61	0.00500	0.00031	0.00151	0.001	0.0013	1.8e-06	0.001 - 0.005	2016-06-08 to 2024-11-06
CCR-LF-1	Arsenic, Total	mg/L	23	6	26	0.00500	0.00031	0.00126	0.00094	0.0013	1.6e-06	0.001 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-2	Arsenic, Total	mg/L	23	6	26	0.02500	0.001	0.00469	0.0017	0.0057	3.2e-05	0.01 - 0.025	2016-06-08 to 2024-11-08
CCR-LF-3	Arsenic, Total	mg/L	23	9	39	0.00880	0.00025	0.00153	0.00062	0.0022	4.9e-06	0.001 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-4	Arsenic, Total	mg/L	23	0	0	0.03500	0.0021	0.0191	0.019	0.0071	5.1e-05	NA	2016-06-07 to 2024-11-07
CCR-LF-5	Arsenic, Total	mg/L	23	11	48	0.01500	0.00032	0.00242	0.001	0.0036	1.3e-05	0.001 - 0.01	2016-06-08 to 2024-11-07
CCR-LF-6	Arsenic, Total	mg/L	23	12	52	0.00970	0.00029	0.0018	0.001	0.0024	5.6e-06	0.001 - 0.005	2016-06-08 to 2024-11-08
Pooled Background	Arsenic, Total	mg/L	45	23	51	0.00500	0.00021	0.0014	0.001	0.0013	1.7e-06	0.001 - 0.005	2016-06-08 to 2024-11-07
CCR-BK-1	Barium, Total	mg/L	23	0	0	0.08700	0.027	0.0456	0.038	0.017	0.00028	NA	2016-08-11 to 2024-11-07
CCR-BK-2	Barium, Total	mg/L	23	0	0	0.15000	0.032	0.042	0.036	0.024	0.00058	NA	2016-06-08 to 2024-11-06
CCR-LF-1	Barium, Total	mg/L	23	0	0	0.17000	0.023	0.0512	0.042	0.031	0.00098	NA	2016-06-08 to 2024-11-07
CCR-LF-2	Barium, Total	mg/L	21	2	10	0.25000	0.01	0.0282	0.012	0.054	0.0029	0.1 - 0.25	2016-06-08 to 2024-11-08
CCR-LF-3	Barium, Total	mg/L	23	0	0	0.03000	0.016	0.0225	0.025	0.005	2.5e-05	NA	2016-06-08 to 2024-11-07
CCR-LF-4	Barium, Total	mg/L	21	2	10	0.10000	0.0078	0.0168	0.012	0.019	0.00037	0.017 - 0.1	2016-06-07 to 2024-11-07
CCR-LF-5	Barium, Total	mg/L	23	0	0	0.03700	0.02	0.0261	0.026	0.0039	1.5e-05	NA	2016-06-08 to 2024-11-07
CCR-LF-6	Barium, Total	mg/L	23	0	0	0.09800	0.015	0.025	0.019	0.017	0.00029	NA	2016-06-08 to 2024-11-08
Pooled Background	Barium, Total	mg/L	46	0	0	0.15000	0.027	0.0438	0.037	0.021	0.00042	NA	2016-06-08 to 2024-11-07
CCR-BK-1	Beryllium, Total	mg/L	22	21	95	0.00100	0.00012	0.00096	0.001	0.00019	3.5e-08	0.001 - 0.001	2016-08-11 to 2024-11-07
CCR-BK-2	Beryllium, Total	mg/L	22	19	86	0.00100	0.00018	0.000905	0.001	0.00025	6.2e-08	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-LF-1	Beryllium, Total	mg/L	21	21	100	0.00100	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-2	Beryllium, Total	mg/L	21	17	81	0.02500	0.00013	0.00327	0.001	0.006	3.6e-05	0.001 - 0.025	2016-06-08 to 2024-11-08
CCR-LF-3	Beryllium, Total	mg/L	21	21	100	0.00100	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-4	Beryllium, Total	mg/L	21	16	76	0.01000	0.00013	0.0021	0.001	0.0033	1.1e-05	0.001 - 0.01	2016-06-07 to 2024-11-07
CCR-LF-5	Beryllium, Total	mg/L	21	20	95	0.00100	0.00019	0.000961	0.001	0.00018	3.1e-08	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-6	Beryllium, Total	mg/L	21	20	95	0.00100	0.00035	0.000969	0.001	0.00014	2e-08	0.001 - 0.001	2016-06-08 to 2024-11-08
Pooled Background	Beryllium, Total	mg/L	44	40	91	0.00100	0.00012	0.000932	0.001	0.00022	4.8e-08	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-BK-1	Cadmium, Total	mg/L	23	22	96	0.00100	9e-05	0.00096	0.001	0.00019	3.6e-08	0.001 - 0.001	2016-08-11 to 2024-11-07
CCR-BK-2	Cadmium, Total	mg/L	23	22	96	0.00100	0.00024	0.000967	0.001	0.00016	2.5e-08	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-LF-1	Cadmium, Total	mg/L	23	22	96	0.00100	0.00018	0.000964	0.001	0.00017	2.9e-08	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-2	Cadmium, Total	mg/L	23	1	4	0.02500	0.00075	0.00577	0.0045	0.0047	2.2e-05	0.025 - 0.025	2016-06-08 to 2024-11-08
CCR-LF-3	Cadmium, Total	mg/L	23	19	83	0.00100	9.5e-05	0.000849	0.001	0.00034	1.1e-07	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-4	Cadmium, Total	mg/L	23	22	96	0.01000	9.2e-05	0.00253	0.001	0.0035	1.2e-05	0.001 - 0.01	2016-06-07 to 2024-11-07
CCR-LF-5	Cadmium, Total	mg/L	23	4	17	0.01000	0.00015	0.000759	0.00023	0.002	4.1e-06	0.001 - 0.01	2016-06-08 to 2024-11-07
CCR-LF-6	Cadmium, Total	mg/L	23	7	30	0.00470	8.3e-05	0.000629	0.00022	0.00097	9.4e-07	0.001 - 0.001	2016-06-08 to 2024-11-08
Pooled Background	Cadmium, Total	mg/L	46	44	96	0.00100	9e-05	0.000964	0.001	0.00017	3e-08	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-BK-1	Chromium, Total	mg/L	22	7	32	0.00760	0.00046	0.00236	0.002	0.0015	2.2e-06	0.002 - 0.005	2016-08-11 to 2024-11-07
CCR-BK-2	Chromium, Total	mg/L	22	16	73	0.00870	0.00076	0.00284	0.002	0.0018	3.3e-06	0.002 - 0.005	2016-06-08 to 2024-11-06
CCR-LF-1	Chromium, Total	mg/L	23	12	52	0.00620	0.00089	0.00246	0.002	0.0015	2.3e-06	0.002 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-2	Chromium, Total	mg/L	22	16	73	0.05000	0.00067	0.00843	0.002	0.012	0.00015	0.002 - 0.05	2016-06-08 to 2024-11-08
CCR-LF-3	Chromium, Total	mg/L	22	8	36	0.00500	0.0012	0.00233	0.002	0.001	1e-06	0.002 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-4	Chromium, Total	mg/L	22	18	82	0.02000	0.00044	0.00563	0.002	0.0071	5.1e-05	0.002 - 0.02	2016-06-07 to 2024-11-07
CCR-LF-5	Chromium, Total	mg/L	22	14	64	0.02200	0.0006	0.00384	0.002	0.0057	3.3e-05	0.002 - 0.02	2016-06-08 to 2024-11-07
CCR-LF-6	Chromium, Total	mg/L	22	19	86	0.00700	0.00035	0.00252	0.002	0.0016	2.4e-06	0.002 - 0.005	2016-06-08 to 2024-11-08
Pooled Background	Chromium, Total	mg/L	44	23	52	0.00870	0.00046	0.0026	0.002	0.0017	2.8e-06	0.002 - 0.005	2016-06-08 to 2024-11-07
CCR-BK-1	Cobalt, Total	mg/L	22	6	27	0.00280	0.00012	0.00073	0.000505	0.00065	4.3e-07	0.0005 - 0.001	2016-08-11 to 2024-11-07
CCR-BK-2	Cobalt, Total	mg/L	23	13	57	0.00620	9.6e-05	0.000835	0.0005	0.0012	1.5e-06	0.0005 - 0.001	2016-06-08 to 2024-11-06
CCR-LF-1	Cobalt, Total	mg/L	23	9	39	0.00100	4.3e-05	0.000458	0.0005	0.00028	7.7e-08	0.0005 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-2	Cobalt, Total	mg/L	23	0	0	0.01400	0.0057	0.00992	0.011	0.0023	5.2e-06	NA	2016-06-08 to 2024-11-08
CCR-LF-3	Cobalt, Total	mg/L	22	9	41	0.00100	9.1e-05	0.000468	0.00049	0.00022	4.9e-08	0.0005 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-4	Cobalt, Total	mg/L	23	0	0	0.00180	0.00015	0.00111	0.0011	0.00038	1.4e-07	NA	2016-06-07 to 2024-11-07
CCR-LF-5	Cobalt, Total	mg/L	23	9	39	0.00500	0.00018	0.000784	0.0005	0.0011	1.3e-06	0.0005 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-6	Cobalt, Total	mg/L	22	4	18	0.01600	9.9e-05	0.00109	0.000315	0.0033	1.1e-05	0.0005 - 0.0005	2016-06-08 to 2024-11-08
Pooled Background	Cobalt, Total	mg/L	45	19	42	0.00620	9.6e-05	0.000783	0.0005	0.00098	9.7e-07	0.0005 - 0.001	2016-06-08 to 2024-11-07
CCR-BK-1	Fluoride	mg/L	22	2	9	0.38000	0.17	0.296	0.315	0.07	0.0049	0.23 - 0.23	2016-10-27 to 2024-11-07
CCR-BK-2	Fluoride	mg/L	21	3	14	0.34000	0.07	0.156	0.15	0.054	0.0029	0.1 - 0.12	2016-08-10 to 2024-11-06
CCR-LF-1	Fluoride	mg/L	22	3	14	0.32000	0.1	0.226	0.23	0.058	0.0033	0.1 - 0.14	2016-08-10 to 2024-11-07
CCR-LF-2	Fluoride	mg/L	22	16	73	25.00000	0.26	2.89	2.5	5.1	26	1 - 25	2016-08-10 to 2024-11-08
CCR-LF-3	Fluoride	mg/L	20	2	10	0.34000	0.1	0.215	0.205	0.07	0.0049	0.1 - 0.25	2016-08-09 to 2024-11-07
CCR-LF-4	Fluoride	mg/L	23	11	48	2.50000	0.26	0.931	1	0.74	0.54	1 - 2.5	2016-06-07 to 2024-11-07
CCR-LF-5	Fluoride	mg/L	21	4	19	1.00000	0.091	0.299	0.23	0.2	0.04	0.5 - 1	2016-08-09 to 2024-11-07
CCR-LF-6	Fluoride	mg/L	22	0	0	0.51000	0.12	0.333	0.33	0.091	0.0083	NA	2016-08-09 to 2024-11-08
Pooled Background	Fluoride	mg/L	43	5	12	0.38000	0.07	0.228	0.2	0.094	0.0089	0.1 - 0.23	2016-08-10 to 2024-11-07
CCR-BK-1	Lead, Total	mg/L	23	5	22	0.00110	7.9e-05	0.000589	0.00063	0.00037	1.4e-07	0.001 - 0.001	2016-08-11 to 2024-11-07
CCR-BK-2	Lead, Total	mg/L	23	15	65	0.01100	2.8e-05	0.00152	0.001	0.0022	4.7e-06	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-LF-1	Lead, Total	mg/L	22	12	55	0.00190	3.3e-05	0.000834	0.001	0.0004	1.6e-07	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-2	Lead, Total	mg/L	22	9	41	0.02500	0.00019	0.00391	0.00098	0.0062	3.8e-05	0.001 - 0.025	2016-06-08 to 2024-11-08
CCR-LF-3	Lead, Total	mg/L	22	20	91	0.00100	5.9e-05	0.000891	0.001	0.00029	8.4e-08	0.00047 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-4	Lead, Total	mg/L	22	11	50	0.07900	8.4e-05	0.00563	0.001	0.017	0.00028	0.001 - 0.01	2016-06-07 to 2024-11-07

Note:

Units: mg/L = milligrams per liter, pCi/L = picocuries per liter

Location	Constituent	Units	n	n, non-detects	percent of non-detects	max	min	mean	median	standard deviation	variance	reporting limit range	date range
CCR-LF-5	Lead, Total	mg/L	22	14	64	0.01000	0.00011	0.00118	0.001	0.002	4e-06	0.0004 - 0.01	2016-06-08 to 2024-11-07
CCR-LF-6	Lead, Total	mg/L	22	18	82	0.00320	4.5e-05	0.000946	0.001	0.0006	3.7e-07	0.00024 - 0.001	2016-06-08 to 2024-11-08
Pooled Background	Lead, Total	mg/L	46	20	43	0.01100	2.8e-05	0.00105	0.001	0.0016	2.6e-06	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-BK-1	Lithium, Total	mg/L	23	15	65	0.05000	0.0025	0.0213	0.008	0.022	0.00046	0.005 - 0.05	2016-08-11 to 2024-11-07
CCR-BK-2	Lithium, Total	mg/L	23	17	74	0.05000	0.0016	0.0244	0.008	0.023	0.00053	0.005 - 0.05	2016-06-08 to 2024-11-06
CCR-LF-1	Lithium, Total	mg/L	23	9	39	0.05000	0.0036	0.0193	0.0066	0.021	0.00043	0.0059 - 0.05	2016-06-08 to 2024-11-07
CCR-LF-2	Lithium, Total	mg/L	23	5	22	0.25000	0.005	0.0386	0.022	0.052	0.0027	0.005 - 0.25	2016-06-08 to 2024-11-08
CCR-LF-3	Lithium, Total	mg/L	23	19	83	0.05000	0.0018	0.0217	0.008	0.021	0.00045	0.005 - 0.05	2016-06-08 to 2024-11-07
CCR-LF-4	Lithium, Total	mg/L	23	0	0	0.12000	0.037	0.0846	0.087	0.017	0.00029	NA	2016-06-07 to 2024-11-07
CCR-LF-5	Lithium, Total	mg/L	23	1	4	0.05000	0.019	0.0241	0.022	0.0066	4.3e-05	0.05 - 0.05	2016-06-08 to 2024-11-07
CCR-LF-6	Lithium, Total	mg/L	23	0	0	0.02300	0.013	0.018	0.019	0.0031	9.7e-06	NA	2016-06-08 to 2024-11-08
Pooled Background	Lithium, Total	mg/L	46	32	70	0.05000	0.0016	0.0228	0.008	0.022	0.00049	0.005 - 0.05	2016-06-08 to 2024-11-07
CCR-BK-1	Mercury, Total	mg/L	22	22	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-08-11 to 2024-11-07
CCR-BK-2	Mercury, Total	mg/L	22	20	91	0.00020	0.0001	0.000195	0.0002	2.1e-05	4.5e-10	0.0002 - 0.0002	2016-06-08 to 2024-11-06
CCR-LF-1	Mercury, Total	mg/L	22	21	95	0.00020	0.00013	0.000197	0.0002	1.5e-05	2.2e-10	0.0002 - 0.0002	2016-06-08 to 2024-11-07
CCR-LF-2	Mercury, Total	mg/L	22	21	95	0.00020	0.00014	0.000197	0.0002	1.3e-05	1.6e-10	0.0002 - 0.0002	2016-06-08 to 2024-11-08
CCR-LF-3	Mercury, Total	mg/L	22	22	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-08 to 2024-11-07
CCR-LF-4	Mercury, Total	mg/L	22	22	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-07 to 2024-11-07
CCR-LF-5	Mercury, Total	mg/L	22	6	27	0.00041	5.3e-05	0.000169	0.000155	8.4e-05	7e-09	0.0002 - 0.0002	2016-06-08 to 2024-11-07
CCR-LF-6	Mercury, Total	mg/L	22	22	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-08 to 2024-11-08
Pooled Background	Mercury, Total	mg/L	44	42	95	0.00020	0.0001	0.000198	0.0002	1.5e-05	2.3e-10	0.0002 - 0.0002	2016-06-08 to 2024-11-07
CCR-BK-1	Molybdenum, Total	mg/L	22	2	9	0.00500	0.00063	0.00183	0.00145	0.0012	1.6e-06	0.005 - 0.005	2016-08-11 to 2024-11-07
CCR-BK-2	Molybdenum, Total	mg/L	23	13	57	0.00500	0.00051	0.00331	0.005	0.002	4.1e-06	0.005 - 0.005	2016-06-08 to 2024-11-06
CCR-LF-1	Molybdenum, Total	mg/L	23	3	13	0.00500	0.00069	0.00165	0.0012	0.0014	1.9e-06	0.005 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-2	Molybdenum, Total	mg/L	22	6	27	0.13000	0.0015	0.0192	0.0027	0.032	0.001	0.05 - 0.13	2016-06-08 to 2024-11-08
CCR-LF-3	Molybdenum, Total	mg/L	22	4	18	0.00560	0.00074	0.00224	0.0014	0.0017	2.9e-06	0.005 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-4	Molybdenum, Total	mg/L	23	1	4	0.02900	0.005	0.0221	0.023	0.0055	3e-05	0.005 - 0.005	2016-06-07 to 2024-11-07
CCR-LF-5	Molybdenum, Total	mg/L	23	8	35	0.05000	0.00058	0.00431	0.001	0.01	0.0001	0.005 - 0.05	2016-06-08 to 2024-11-07
CCR-LF-6	Molybdenum, Total	mg/L	22	4	18	0.00660	0.00061	0.00207	0.00125	0.0019	3.4e-06	0.005 - 0.005	2016-06-08 to 2024-11-08
Pooled Background	Molybdenum, Total	mg/L	45	15	33	0.00500	0.00051	0.00258	0.0017	0.0018	3.3e-06	0.005 - 0.005	2016-06-08 to 2024-11-07
CCR-BK-1	Radium-226 & 228	pCi/L	20	9	45	2.46000	0.121	0.601	0.495	0.53	0.28	0.121 - 0.959	2016-08-11 to 2024-11-07
CCR-BK-2	Radium-226 & 228	pCi/L	22	17	77	3.13000	-0.0961	0.638	0.264	0.87	0.76	-0.0961 - 2.74	2016-06-08 to 2024-11-06
CCR-LF-1	Radium-226 & 228	pCi/L	19	1	5	8.07000	0.406	1.28	0.749	1.7	2.9	0.54 - 0.54	2016-06-08 to 2024-11-07
CCR-LF-2	Radium-226 & 228	pCi/L	22	0	0	3.87000	1.15	2.31	2.23	0.68	0.46	NA	2016-06-08 to 2024-11-08
CCR-LF-3	Radium-226 & 228	pCi/L	22	11	50	1.68000	0.188	0.595	0.503	0.37	0.13	0.188 - 1.68	2016-06-08 to 2024-11-07
CCR-LF-4	Radium-226 & 228	pCi/L	22	0	0	8.14000	2.1	4.79	4.66	1.4	1.9	NA	2016-06-07 to 2024-11-07
CCR-LF-5	Radium-226 & 228	pCi/L	23	17	74	2.78000	-0.0225	0.507	0.255	0.62	0.39	-0.0225 - 1.39	2016-06-08 to 2024-11-07
CCR-LF-6	Radium-226 & 228	pCi/L	23	17	74	6.53000	0.101	0.664	0.31	1.3	1.7	0.101 - 0.996	2016-06-08 to 2024-11-08
Pooled Background	Radium-226 & 228	pCi/L	42	26	62	3.13000	-0.0961	0.62	0.39	0.72	0.52	-0.0961 - 2.74	2016-06-08 to 2024-11-07
CCR-BK-1	Selenium, Total	mg/L	23	19	83	0.00500	0.00037	0.00432	0.005	0.0016	2.5e-06	0.005 - 0.005	2016-08-11 to 2024-11-07
CCR-BK-2	Selenium, Total	mg/L	23	20	87	0.00500	0.00047	0.00452	0.005	0.0013	1.7e-06	0.005 - 0.005	2016-06-08 to 2024-11-06
CCR-LF-1	Selenium, Total	mg/L	22	17	77	0.00500	0.00089	0.00411	0.005	0.0017	2.8e-06	0.005 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-2	Selenium, Total	mg/L	22	6	27	0.13000	0.0018	0.0196	0.00375	0.032	0.001	0.05 - 0.13	2016-06-08 to 2024-11-08
CCR-LF-3	Selenium, Total	mg/L	22	12	55	0.00500	0.0011	0.00357	0.005	0.0016	2.6e-06	0.005 - 0.005	2016-06-08 to 2024-11-07
CCR-LF-4	Selenium, Total	mg/L	22	15	68	0.05000	0.00055	0.012	0.005	0.018	0.00034	0.005 - 0.05	2016-06-07 to 2024-11-07
CCR-LF-5	Selenium, Total	mg/L	22	18	82	0.05000	0.00054	0.00634	0.005	0.0099	9.7e-05	0.005 - 0.05	2016-06-08 to 2024-11-07
CCR-LF-6	Selenium, Total	mg/L	22	14	64	0.00500	0.00074	0.00384	0.005	0.0016	2.6e-06	0.005 - 0.005	2016-06-08 to 2024-11-08
Pooled Background	Selenium, Total	mg/L	46	39	85	0.00500	0.00037	0.00442	0.005	0.0014	2.1e-06	0.005 - 0.005	2016-06-08 to 2024-11-07
CCR-BK-1	Thallium, Total	mg/L	22	20	91	0.00100	3.8e-05	0.000923	0.001	0.00025	6.3e-08	0.001 - 0.001	2016-08-11 to 2024-11-07
CCR-BK-2	Thallium, Total	mg/L	22	18	82	0.00100	5.9e-05	0.000872	0.001	0.0003	9.1e-08	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-LF-1	Thallium, Total	mg/L	21	18	86	0.00100	5.5e-05	0.000919	0.001	0.00023	5.3e-08	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-2	Thallium, Total	mg/L	21	7	33	0.02500	0.00018	0.00364	0.00078	0.0061	3.8e-05	0.001 - 0.025	2016-06-08 to 2024-11-08
CCR-LF-3	Thallium, Total	mg/L	21	15	71	0.00100	1.5e-05	0.000764	0.001	0.00039	1.5e-07	0.001 - 0.001	2016-06-08 to 2024-11-07
CCR-LF-4	Thallium, Total	mg/L	21	17	81	0.01000	3.3e-05	0.00254	0.001	0.0037	1.4e-05	0.001 - 0.01	2016-06-07 to 2024-11-07
CCR-LF-5	Thallium, Total	mg/L	21	17	81	0.01000	2.5e-05	0.0013	0.001	0.002	4.1e-06	0.001 - 0.01	2016-06-08 to 2024-11-07
CCR-LF-6	Thallium, Total	mg/L	21	17	81	0.00100	7.3e-05	0.000843	0.001	0.00033	1.1e-07	0.001 - 0.001	2016-06-08 to 2024-11-08
Pooled Background	Thallium, Total	mg/L	44	38	86	0.00100	3.8e-05	0.000898	0.001	0.00028	7.6e-08	0.001 - 0.001	2016-06-08 to 2024-11-07

Note:

Units: mg/L = milligrams per liter, pCi/L = picocuries per liter

Table A-2. Results of Shapiro-Wilk Test for Normality

				Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			
Location	**Constituent**	**n**	**n, non-detects**	**W statistic**	**p-value**	**Data Normality (significance level = 0.05)**	**Data Normality (significance level = 0.01)**
CCR-BK-1	Antimony, Total	22	20	0.3392	5.522e-09	Not normal	Not normal
CCR-BK-2	Antimony, Total	22	20	0.3423	5.847e-09	Not normal	Not normal
CCR-LF-1	Antimony, Total	21	17	0.4921	1.723e-07	Not normal	Not normal
CCR-LF-2	Antimony, Total	21	20	0.5513	6.264e-07	Not normal	Not normal
CCR-LF-3	Antimony, Total	21	19	0.3428	9.633e-09	Not normal	Not normal
CCR-LF-4	Antimony, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-LF-5	Antimony, Total	21	19	0.2627	2.445e-09	Not normal	Not normal
CCR-LF-6	Antimony, Total	21	19	0.4244	4.387e-08	Not normal	Not normal
Pooled Background	Antimony, Total	44	40	0.332	6.974e-13	Not normal	Not normal
CCR-BK-1	Arsenic, Total	22	9	0.7493	8.885e-05	Not normal	Not normal
CCR-BK-2	Arsenic, Total	23	14	0.6618	4.648e-06	Not normal	Not normal
CCR-LF-1	Arsenic, Total	23	6	0.8098	0.0005516	Not normal	Not normal
CCR-LF-2	Arsenic, Total	23	6	0.6984	1.335e-05	Not normal	Not normal
CCR-LF-3	Arsenic, Total	23	9	0.4472	2.787e-08	Not normal	Not normal
CCR-LF-4	Arsenic, Total	23	0	0.9619	0.5038	Normal	Normal
CCR-LF-5	Arsenic, Total	23	11	0.4683	4.33e-08	Not normal	Not normal
CCR-LF-6	Arsenic, Total	23	12	0.4983	8.254e-08	Not normal	Not normal
Pooled Background	Arsenic, Total	45	23	0.7054	3.406e-08	Not normal	Not normal
CCR-BK-1	Barium, Total	23	0	0.8213	0.0008568	Not normal	Not normal
CCR-BK-2	Barium, Total	23	0	0.3926	9.351e-09	Not normal	Not normal
CCR-LF-1	Barium, Total	23	0	0.6913	1.082e-05	Not normal	Not normal
CCR-LF-2	Barium, Total	21	2	0.3822	1.972e-08	Not normal	Not normal
CCR-LF-3	Barium, Total	23	0	0.8805	0.01025	Not normal	Normal
CCR-LF-4	Barium, Total	21	2	0.5129	2.681e-07	Not normal	Not normal
CCR-LF-5	Barium, Total	23	0	0.8923	0.01759	Not normal	Normal
CCR-LF-6	Barium, Total	23	0	0.5059	9.754e-08	Not normal	Not normal
Pooled Background	Barium, Total	46	0	0.5934	4.587e-10	Not normal	Not normal
CCR-BK-1	Beryllium, Total	22	21	0.2215	7.417e-10	Not normal	Not normal
CCR-BK-2	Beryllium, Total	22	19	0.4113	2.133e-08	Not normal	Not normal
CCR-LF-1	Beryllium, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-LF-2	Beryllium, Total	21	17	0.5147	2.79e-07	Not normal	Not normal
CCR-LF-3	Beryllium, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-LF-4	Beryllium, Total	21	16	0.4853	1.494e-07	Not normal	Not normal
CCR-LF-5	Beryllium, Total	21	20	0.2284	1.401e-09	Not normal	Not normal
CCR-LF-6	Beryllium, Total	21	20	0.2284	1.401e-09	Not normal	Not normal
Pooled Background	Beryllium, Total	44	40	0.3167	4.931e-13	Not normal	Not normal
CCR-BK-1	Cadmium, Total	23	22	0.215	3.995e-10	Not normal	Not normal
CCR-BK-2	Cadmium, Total	23	22	0.215	3.995e-10	Not normal	Not normal
CCR-LF-1	Cadmium, Total	23	22	0.215	3.995e-10	Not normal	Not normal
CCR-LF-2	Cadmium, Total	23	1	0.9086	0.03823	Not normal	Normal
CCR-LF-3	Cadmium, Total	23	19	0.4785	5.377e-08	Not normal	Not normal
CCR-LF-4	Cadmium, Total	23	22	0.4889	6.727e-08	Not normal	Not normal
CCR-LF-5	Cadmium, Total	23	4	0.3033	1.789e-09	Not normal	Not normal
CCR-LF-6	Cadmium, Total	23	7	0.3565	4.703e-09	Not normal	Not normal
Pooled Background	Cadmium, Total	46	44	0.2117	2.571e-14	Not normal	Not normal
CCR-BK-1	Chromium, Total	22	7	0.7254	4.187e-05	Not normal	Not normal
CCR-BK-2	Chromium, Total	22	16	0.6002	1.333e-06	Not normal	Not normal
CCR-LF-1	Chromium, Total	23	12	0.659	4.302e-06	Not normal	Not normal
CCR-LF-2	Chromium, Total	22	16	0.6351	3.245e-06	Not normal	Not normal
CCR-LF-3	Chromium, Total	22	8	0.92	0.07606	Normal	Normal
CCR-LF-4	Chromium, Total	22	18	0.6145	1.908e-06	Not normal	Not normal
CCR-LF-5	Chromium, Total	22	14	0.4197	2.516e-08	Not normal	Not normal
CCR-LF-6	Chromium, Total	22	19	0.4929	1.128e-07	Not normal	Not normal
Pooled Background	Chromium, Total	44	23	0.6821	1.766e-08	Not normal	Not normal
CCR-BK-1	Cobalt, Total	22	6	0.727	4.41e-05	Not normal	Not normal
CCR-BK-2	Cobalt, Total	23	13	0.4322	2.051e-08	Not normal	Not normal
CCR-LF-1	Cobalt, Total	23	9	0.8636	0.00485	Not normal	Not normal
CCR-LF-2	Cobalt, Total	23	0	0.9359	0.1463	Normal	Normal
CCR-LF-3	Cobalt, Total	22	9	0.9005	0.03036	Not normal	Normal
CCR-LF-4	Cobalt, Total	23	0	0.9658	0.5894	Normal	Normal

				Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			
Location	Constituent	n	n, non-detects	W statistic	p-value	Data Normality (significance level = 0.05)	Data Normality (significance level = 0.01)
CCR-LF-5	Cobalt, Total	23	9	0.5255	1.517e-07	Not normal	Not normal
CCR-LF-6	Cobalt, Total	22	4	0.2721	1.713e-09	Not normal	Not normal
Pooled Background	Cobalt, Total	45	19	0.5176	5.917e-11	Not normal	Not normal
CCR-BK-1	Fluoride	22	2	0.8486	0.00321	Not normal	Not normal
CCR-BK-2	Fluoride	21	3	0.8762	0.01243	Not normal	Normal
CCR-LF-1	Fluoride	22	3	0.8652	0.006372	Not normal	Not normal
CCR-LF-2	Fluoride	22	16	0.4595	5.597e-08	Not normal	Not normal
CCR-LF-3	Fluoride	20	2	0.9542	0.4349	Normal	Normal
CCR-LF-4	Fluoride	23	11	0.6658	5.192e-06	Not normal	Not normal
CCR-LF-5	Fluoride	21	4	0.9185	0.08099	Normal	Normal
CCR-LF-6	Fluoride	22	0	0.9835	0.9617	Normal	Normal
Pooled Background	Fluoride	43	5	0.9058	0.001888	Not normal	Not normal
CCR-BK-1	Lead, Total	23	5	0.9324	0.1232	Normal	Normal
CCR-BK-2	Lead, Total	23	15	0.4026	1.136e-08	Not normal	Not normal
CCR-LF-1	Lead, Total	22	12	0.6473	4.482e-06	Not normal	Not normal
CCR-LF-2	Lead, Total	22	9	0.6493	4.734e-06	Not normal	Not normal
CCR-LF-3	Lead, Total	22	20	0.4244	2.757e-08	Not normal	Not normal
CCR-LF-4	Lead, Total	22	11	0.284	2.096e-09	Not normal	Not normal
CCR-LF-5	Lead, Total	22	14	0.423	2.682e-08	Not normal	Not normal
CCR-LF-6	Lead, Total	22	18	0.3836	1.254e-08	Not normal	Not normal
Pooled Background	Lead, Total	46	20	0.3438	4.696e-13	Not normal	Not normal
CCR-BK-1	Lithium, Total	23	15	0.7248	2.989e-05	Not normal	Not normal
CCR-BK-2	Lithium, Total	23	17	0.6752	6.792e-06	Not normal	Not normal
CCR-LF-1	Lithium, Total	23	9	0.7057	1.659e-05	Not normal	Not normal
CCR-LF-2	Lithium, Total	23	5	0.5945	7.858e-07	Not normal	Not normal
CCR-LF-3	Lithium, Total	23	19	0.7062	1.686e-05	Not normal	Not normal
CCR-LF-4	Lithium, Total	23	0	0.9601	0.4656	Normal	Normal
CCR-LF-5	Lithium, Total	23	1	0.8982	0.02325	Not normal	Normal
CCR-LF-6	Lithium, Total	23	0	0.9256	0.08788	Normal	Normal
Pooled Background	Lithium, Total	46	32	0.7016	2.294e-08	Not normal	Not normal
CCR-BK-1	Mercury, Total	22	22	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-BK-2	Mercury, Total	22	20	0.2215	7.417e-10	Not normal	Not normal
CCR-LF-1	Mercury, Total	22	21	0.2215	7.417e-10	Not normal	Not normal
CCR-LF-2	Mercury, Total	22	21	0.2215	7.417e-10	Not normal	Not normal
CCR-LF-3	Mercury, Total	22	22	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-LF-4	Mercury, Total	22	22	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-LF-5	Mercury, Total	22	6	0.751	9.39e-05	Not normal	Not normal
CCR-LF-6	Mercury, Total	22	22	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
Pooled Background	Mercury, Total	44	42	0.1374	1.215e-14	Not normal	Not normal
CCR-BK-1	Molybdenum, Total	22	2	0.9114	0.05065	Normal	Normal
CCR-BK-2	Molybdenum, Total	23	13	0.7031	1.535e-05	Not normal	Not normal
CCR-LF-1	Molybdenum, Total	23	3	0.8545	0.003279	Not normal	Not normal
CCR-LF-2	Molybdenum, Total	22	6	0.6	1.326e-06	Not normal	Not normal
CCR-LF-3	Molybdenum, Total	22	4	0.7686	0.0001679	Not normal	Not normal
CCR-LF-4	Molybdenum, Total	23	1	0.8405	0.001841	Not normal	Not normal
CCR-LF-5	Molybdenum, Total	23	8	0.3407	3.512e-09	Not normal	Not normal
CCR-LF-6	Molybdenum, Total	22	4	0.6544	5.426e-06	Not normal	Not normal
Pooled Background	Molybdenum, Total	45	15	0.8567	5.472e-05	Not normal	Not normal
CCR-BK-1	Radium-226 & 228	20	9	0.6784	2.153e-05	Not normal	Not normal
CCR-BK-2	Radium-226 & 228	22	17	0.669	8.089e-06	Not normal	Not normal
CCR-LF-1	Radium-226 & 228	19	1	0.4608	2.3e-07	Not normal	Not normal
CCR-LF-2	Radium-226 & 228	22	0	0.9623	0.5369	Normal	Normal
CCR-LF-3	Radium-226 & 228	22	11	0.8963	0.02512	Not normal	Normal
CCR-LF-4	Radium-226 & 228	22	0	0.9561	0.4139	Normal	Normal
CCR-LF-5	Radium-226 & 228	23	17	0.5975	8.479e-07	Not normal	Not normal
CCR-LF-6	Radium-226 & 228	23	17	0.3405	3.502e-09	Not normal	Not normal
Pooled Background	Radium-226 & 228	42	26	0.6986	5.507e-08	Not normal	Not normal
CCR-BK-1	Selenium, Total	23	19	0.443	2.554e-08	Not normal	Not normal
CCR-BK-2	Selenium, Total	23	20	0.3465	3.911e-09	Not normal	Not normal
CCR-LF-1	Selenium, Total	22	17	0.5483	3.864e-07	Not normal	Not normal
CCR-LF-2	Selenium, Total	22	6	0.6266	2.601e-06	Not normal	Not normal
CCR-LF-3	Selenium, Total	22	12	0.7486	8.705e-05	Not normal	Not normal

Location	Constituent	n	n, non-detects	Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			
				W statistic	p-value	Data Normality (significance level = 0.05)	Data Normality (significance level = 0.01)
CCR-LF-4	Selenium, Total	22	15	0.538	3.053e-07	Not normal	Not normal
CCR-LF-5	Selenium, Total	22	18	0.2965	2.598e-09	Not normal	Not normal
CCR-LF-6	Selenium, Total	22	14	0.6111	1.753e-06	Not normal	Not normal
Pooled Background	Selenium, Total	46	39	0.3965	1.683e-12	Not normal	Not normal
CCR-BK-1	Thallium, Total	22	20	0.3331	4.953e-09	Not normal	Not normal
CCR-BK-2	Thallium, Total	22	18	0.5878	9.842e-07	Not normal	Not normal
CCR-LF-1	Thallium, Total	21	18	0.416	3.73e-08	Not normal	Not normal
CCR-LF-2	Thallium, Total	21	7	0.6034	2.137e-06	Not normal	Not normal
CCR-LF-3	Thallium, Total	21	15	0.6132	2.724e-06	Not normal	Not normal
CCR-LF-4	Thallium, Total	21	17	0.5491	5.967e-07	Not normal	Not normal
CCR-LF-5	Thallium, Total	21	17	0.341	9.326e-09	Not normal	Not normal
CCR-LF-6	Thallium, Total	21	17	0.5112	2.584e-07	Not normal	Not normal
Pooled Background	Thallium, Total	44	38	0.4824	2.984e-11	Not normal	Not normal

Table A-3. Results of Rosner/Dixon Test for Outliers

				Rosner or Dixon Test for Outliers (R programming, package = outliers, version 0.15, function = dixon.test or rosnerTest, non-detects substituted by 0.5*reporting limit)						
Location	**Constituent**	**n**	**n, non-detects**	**Outlier Test**	**statistic**	**p-value (Dixon)**	**critical value (Rosner)**	**n of statistical outliers (significance level = 0.05, Rosner)**	**statistical outlier (significance level = 0.05, Dixon)**	**outlier removed**
CCR-BK-1	Antimony, Total	22	20	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Antimony, Total	22	20	Dixon	1	0	NA	NA	Yes	No
CCR-LF-1	Antimony, Total	21	17	Dixon	0.02381	0	NA	NA	Yes	No
CCR-LF-2	Antimony, Total	21	20	Dixon	0.625	0	NA	NA	Yes	No
CCR-LF-3	Antimony, Total	21	19	Dixon	1	0	NA	NA	Yes	No
CCR-LF-4	Antimony, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-5	Antimony, Total	21	19	Dixon	1	0	NA	NA	Yes	No
CCR-LF-6	Antimony, Total	21	19	Dixon	1	0	NA	NA	Yes	No
Pooled Background	Antimony, Total	44	40	Rosner	4.798, 4.093, 5.076	NA	3.076, 3.067, 3.057	3	NA	No
CCR-BK-1	Arsenic, Total	22	9	Dixon	0	0	NA	NA	Yes	No
CCR-BK-2	Arsenic, Total	23	14	Dixon	0.2589	0.6833	NA	NA	No	NA
CCR-LF-1	Arsenic, Total	23	6	Dixon	0.1422	0.576	NA	NA	No	NA
CCR-LF-2	Arsenic, Total	23	6	Dixon	0.6696	0	NA	NA	Yes	No
CCR-LF-3	Arsenic, Total	23	9	Dixon	0.742	0	NA	NA	Yes	No
CCR-LF-4	Arsenic, Total	23	0	Dixon	0.3724	0.2043	NA	NA	No	NA
CCR-LF-5	Arsenic, Total	23	11	Dixon	0.8345	0	NA	NA	Yes	No
CCR-LF-6	Arsenic, Total	23	12	Dixon	0.766	0	NA	NA	Yes	No
Pooled Background	Arsenic, Total	45	23	Rosner	2.931, 2.417, 2.498	NA	3.085, 3.076, 3.067	0	NA	NA
CCR-BK-1	Barium, Total	23	0	Dixon	0.2321	0.8416	NA	NA	No	NA
CCR-BK-2	Barium, Total	23	0	Dixon	0.8644	0	NA	NA	Yes	No
CCR-LF-1	Barium, Total	23	0	Dixon	0.5816	0	NA	NA	Yes	No
CCR-LF-2	Barium, Total	21	2	Dixon	0.9123	0	NA	NA	Yes	No
CCR-LF-3	Barium, Total	23	0	Dixon	0.07143	0.1841	NA	NA	No	NA
CCR-LF-4	Barium, Total	21	2	Dixon	0.8232	0	NA	NA	Yes	No
CCR-LF-5	Barium, Total	23	0	Dixon	0.4	0.1386	NA	NA	No	NA
CCR-LF-6	Barium, Total	23	0	Dixon	0.8293	0	NA	NA	Yes	No
Pooled Background	Barium, Total	46	0	Rosner	5.162, 3.484, 3.711	NA	3.094, 3.085, 3.076	3	NA	No
CCR-BK-1	Beryllium, Total	22	21	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Beryllium, Total	22	19	Dixon	0.6875	0	NA	NA	Yes	No
CCR-LF-1	Beryllium, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-2	Beryllium, Total	21	17	Dixon	0.6088	0	NA	NA	Yes	No
CCR-LF-3	Beryllium, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-4	Beryllium, Total	21	16	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Beryllium, Total	21	20	Dixon	1	0	NA	NA	Yes	No
CCR-LF-6	Beryllium, Total	21	20	Dixon	1	0	NA	NA	Yes	No
Pooled Background	Beryllium, Total	44	40	Rosner	4.537, 5.37, 5.513	NA	3.076, 3.067, 3.057	3	NA	No
CCR-BK-1	Cadmium, Total	23	22	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Cadmium, Total	23	22	Dixon	1	0	NA	NA	Yes	No
CCR-LF-1	Cadmium, Total	23	22	Dixon	1	0	NA	NA	Yes	No
CCR-LF-2	Cadmium, Total	23	1	Dixon	0.4184	0.1043	NA	NA	No	NA
CCR-LF-3	Cadmium, Total	23	19	Dixon	0.03704	0.05399	NA	NA	No	NA
CCR-LF-4	Cadmium, Total	23	22	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Cadmium, Total	23	4	Dixon	0.9298	0	NA	NA	Yes	No
CCR-LF-6	Cadmium, Total	23	7	Dixon	0.915	0	NA	NA	Yes	No
Pooled Background	Cadmium, Total	46	44	Rosner	5.581, 6.559, NA	NA	3.094, 3.085, 3.076	2	NA	NA
CCR-BK-1	Chromium, Total	22	7	Dixon	0.6835	0	NA	NA	Yes	No
CCR-BK-2	Chromium, Total	22	16	Dixon	0.5195	0.0177	NA	NA	Yes	No
CCR-LF-1	Chromium, Total	23	12	Dixon	0.7075	0	NA	NA	Yes	No
CCR-LF-2	Chromium, Total	22	16	Dixon	0.6209	0	NA	NA	Yes	No
CCR-LF-3	Chromium, Total	22	8	Dixon	0	0	NA	NA	Yes	No
CCR-LF-4	Chromium, Total	22	18	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Chromium, Total	22	14	Dixon	0.9121	0	NA	NA	Yes	No
CCR-LF-6	Chromium, Total	22	19	Dixon	0.75	0	NA	NA	Yes	No
Pooled Background	Chromium, Total	44	23	Rosner	3.889, 4.129, 2.787	NA	3.076, 3.067, 3.057	2	NA	NA
CCR-BK-1	Cobalt, Total	22	6	Dixon	0.6415	0	NA	NA	Yes	No
CCR-BK-2	Cobalt, Total	23	13	Dixon	0.7705	0	NA	NA	Yes	No
CCR-LF-1	Cobalt, Total	23	9	Dixon	0.3684	0.2157	NA	NA	No	NA
CCR-LF-2	Cobalt, Total	23	0	Dixon	0.2055	0.99	NA	NA	No	NA
CCR-LF-3	Cobalt, Total	22	9	Dixon	0.4565	0.06448	NA	NA	No	NA
CCR-LF-4	Cobalt, Total	23	0	Dixon	0.4222	0.09807	NA	NA	No	NA
CCR-LF-5	Cobalt, Total	23	9	Dixon	0.641	0	NA	NA	Yes	No
CCR-LF-6	Cobalt, Total	22	4	Dixon	0.9534	0	NA	NA	Yes	No
Pooled Background	Cobalt, Total	45	19	Rosner	5.455, 3.97, 3.764	NA	3.085, 3.076, 3.067	3	NA	No
CCR-BK-1	Fluoride	22	2	Dixon	0.2157	0.9828	NA	NA	No	NA
CCR-BK-2	Fluoride	21	3	Dixon	0.5	0.03305	NA	NA	Yes	No
CCR-LF-1	Fluoride	22	3	Dixon	0.08696	0.2424	NA	NA	No	NA

Rosner or Dixon Test for Outliers (R programming, package = outliers, version 0.15, function = dixon.test or rosnerTest, non-detects substituted by 0.5*reporting limit)

Location	Constituent	n	n, non-detects	Outlier Test	statistic	p-value (Dixon)	critical value (Rosner)	n of statistical outliers (significance level = 0.05, Rosner)	statistical outlier (significance level = 0.05, Dixon)	outlier removed
CCR-LF-2	Fluoride	22	16	Dixon	0.8244	0	NA	NA	Yes	No
CCR-LF-3	Fluoride	20	2	Dixon	0.2586	0.808	NA	NA	No	NA
CCR-LF-4	Fluoride	23	11	Dixon	0.4114	0.1165	NA	NA	No	NA
CCR-LF-5	Fluoride	21	4	Dixon	0.4848	0.04539	NA	NA	Yes	No
CCR-LF-6	Fluoride	22	0	Dixon	0.4062	0.1433	NA	NA	No	NA
Pooled Background	Fluoride	43	5	Rosner	1.643, 1.669, 1.7	NA	3.067, 3.057, 3.047	0	NA	NA
CCR-BK-1	Lead, Total	23	5	Dixon	0.1915	0.8969	NA	NA	No	NA
CCR-BK-2	Lead, Total	23	15	Dixon	0.819	0	NA	NA	Yes	No
CCR-LF-1	Lead, Total	22	12	Dixon	0.7219	0	NA	NA	Yes	No
CCR-LF-2	Lead, Total	22	9	Dixon	0.6122	0	NA	NA	Yes	No
CCR-LF-3	Lead, Total	22	20	Dixon	0.3991	0.1587	NA	NA	No	NA
CCR-LF-4	Lead, Total	22	11	Dixon	0.939	0	NA	NA	Yes	No
CCR-LF-5	Lead, Total	22	14	Dixon	0.8075	0	NA	NA	Yes	No
CCR-LF-6	Lead, Total	22	18	Dixon	0.8852	0	NA	NA	Yes	No
Pooled Background	Lead, Total	46	20	Rosner	6.228, 3.848, 3.946	NA	3.094, 3.085, 3.076	3	NA	No
CCR-BK-1	Lithium, Total	23	15	Dixon	0	0	NA	NA	Yes	No
CCR-BK-2	Lithium, Total	23	17	Dixon	0	0	NA	NA	Yes	No
CCR-LF-1	Lithium, Total	23	9	Dixon	0	0	NA	NA	Yes	No
CCR-LF-2	Lithium, Total	23	5	Dixon	0.7706	0	NA	NA	Yes	No
CCR-LF-3	Lithium, Total	23	19	Dixon	0	0	NA	NA	Yes	No
CCR-LF-4	Lithium, Total	23	0	Dixon	0.4921	0.02639	NA	NA	Yes	No
CCR-LF-5	Lithium, Total	23	1	Dixon	0.3333	0.3311	NA	NA	No	NA
CCR-LF-6	Lithium, Total	23	0	Dixon	0	0	NA	NA	Yes	No
Pooled Background	Lithium, Total	46	32	Rosner	1.217, 1.251, 1.289	NA	3.094, 3.085, 3.076	0	NA	NA
CCR-BK-1	Mercury, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-BK-2	Mercury, Total	22	20	Dixon	1	0	NA	NA	Yes	No
CCR-LF-1	Mercury, Total	22	21	Dixon	1	0	NA	NA	Yes	No
CCR-LF-2	Mercury, Total	22	21	Dixon	1	0	NA	NA	Yes	No
CCR-LF-3	Mercury, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-4	Mercury, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-5	Mercury, Total	22	6	Dixon	0.4545	0.0665	NA	NA	No	NA
CCR-LF-6	Mercury, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
Pooled Background	Mercury, Total	44	42	Rosner	6.482, NA, NA	NA	3.076, 3.067, 3.057	1	NA	NA
CCR-BK-1	Molybdenum, Total	22	2	Dixon	0.3396	0.335	NA	NA	No	NA
CCR-BK-2	Molybdenum, Total	23	13	Dixon	0.0603	0.1388	NA	NA	No	NA
CCR-LF-1	Molybdenum, Total	23	3	Dixon	0	0	NA	NA	Yes	No
CCR-LF-2	Molybdenum, Total	22	6	Dixon	0.6369	0	NA	NA	Yes	No
CCR-LF-3	Molybdenum, Total	22	4	Dixon	0.6438	0	NA	NA	Yes	No
CCR-LF-4	Molybdenum, Total	23	1	Dixon	0.4902	0.02744	NA	NA	Yes	No
CCR-LF-5	Molybdenum, Total	23	8	Dixon	0.9236	0	NA	NA	Yes	No
CCR-LF-6	Molybdenum, Total	22	4	Dixon	0.6914	0	NA	NA	Yes	No
Pooled Background	Molybdenum, Total	45	15	Rosner	2.071, 1.571, 1.491	NA	3.085, 3.076, 3.067	0	NA	NA
CCR-BK-1	Radium-226 & 228	20	9	Dixon	0.7727	0	NA	NA	Yes	No
CCR-BK-2	Radium-226 & 228	22	17	Dixon	0.569	0	NA	NA	Yes	No
CCR-LF-1	Radium-226 & 228	19	1	Dixon	0.8648	0	NA	NA	Yes	No
CCR-LF-2	Radium-226 & 228	22	0	Dixon	0.2747	0.6286	NA	NA	No	NA
CCR-LF-3	Radium-226 & 228	22	11	Dixon	0.4268	0.1052	NA	NA	No	NA
CCR-LF-4	Radium-226 & 228	22	0	Dixon	0.3101	0.4548	NA	NA	No	NA
CCR-LF-5	Radium-226 & 228	23	17	Dixon	0.7564	0	NA	NA	Yes	No
CCR-LF-6	Radium-226 & 228	23	17	Dixon	0.9151	0	NA	NA	Yes	No
Pooled Background	Radium-226 & 228	42	26	Rosner	3.914, 3.785, 3.538	NA	3.057, 3.047, 3.036	3	NA	No
CCR-BK-1	Selenium, Total	23	19	Dixon	0.1408	0.5676	NA	NA	No	NA
CCR-BK-2	Selenium, Total	23	20	Dixon	0.9507	0	NA	NA	Yes	No
CCR-LF-1	Selenium, Total	22	17	Dixon	0.1304	0.4829	NA	NA	No	NA
CCR-LF-2	Selenium, Total	22	6	Dixon	0.6349	0	NA	NA	Yes	No
CCR-LF-3	Selenium, Total	22	12	Dixon	0.3571	0.2738	NA	NA	No	NA
CCR-LF-4	Selenium, Total	22	15	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Selenium, Total	22	18	Dixon	0.9494	0	NA	NA	Yes	No
CCR-LF-6	Selenium, Total	22	14	Dixon	0.4886	0.03403	NA	NA	Yes	No
Pooled Background	Selenium, Total	46	39	Rosner	3.189, 3.489, 4.079	NA	3.094, 3.085, 3.076	3	NA	No
CCR-BK-1	Thallium, Total	22	20	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Thallium, Total	22	18	Dixon	0.2971	0.5149	NA	NA	No	NA
CCR-LF-1	Thallium, Total	21	18	Dixon	1	0	NA	NA	Yes	No
CCR-LF-2	Thallium, Total	21	7	Dixon	0.6183	0	NA	NA	Yes	No
CCR-LF-3	Thallium, Total	21	15	Dixon	0.1753	0.7261	NA	NA	No	NA
CCR-LF-4	Thallium, Total	21	17	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Thallium, Total	21	17	Dixon	0.9574	0	NA	NA	Yes	No
CCR-LF-6	Thallium, Total	21	17	Dixon	0.2272	0.9549	NA	NA	No	NA
Pooled Background	Thallium, Total	44	38	Rosner	3.413, 3.866, 3.513	NA	3.076, 3.067, 3.057	3	NA	No

Table A-4. Results of Mann Kendall and Thiel Sen Trend Tests

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-BK-1	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.281	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	2	0.229	NA	NA	NA	NA	NA	NA	NA	8	1	0.267	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	4	0.327	NA	NA	NA	NA	NA	NA	NA	8	3	0.494	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Antimony, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	1.56	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	2	0.182	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Antimony, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	1.33	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	2	1.46	NA	NA	NA	NA	NA	NA	NA	8	1	0.269	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	2	0.162	NA	NA	NA	NA	NA	NA	NA	8	1	0.217	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	44	4	0.253	NA	NA	NA	NA	NA	NA	NA	8	1	0.267	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Arsenic, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	22	13	1.01	0.266	0.101	89.9	58	NA	NA	NA	8	2	0.981	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	9	0.891	NA	NA	NA	NA	NA	NA	NA	8	2	0.826	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Arsenic, Total	No Trend	No Trend	23	17	1	0.0644	0.691	30.9	16	NA	NA	NA	8	6	0.941	2021-05-20 to 2024-11-07	0.182	0.618	38.2	5	NA	NA	NA
CCR-LF-2	Arsenic, Total	No Trend	No Trend	23	17	1.21	-0.148	0.351	64.9	-36	NA	NA	NA	8	8	0.236	2021-05-20 to 2024-11-08	0.296	0.379	62.1	8	NA	NA	NA
CCR-LF-3	Arsenic, Total	No Trend	No Trend	23	14	1.44	0.173	0.273	72.7	42	NA	NA	NA	8	4	1.08	2021-05-20 to 2024-11-07	0.491	0.126	87.4	13	NA	NA	NA
CCR-LF-4	Arsenic, Total	Increasing	Stable	23	23	0.373	0.454	0.00301	99.7	113	3.5e-06	0.015	0.0013	8	8	0.218	2021-05-19 to 2024-11-07	-0.255	0.454	54.6	-7	NA	NA	NA
CCR-LF-5	Arsenic, Total	Probably Increasing	Not Evaluated - Majority of data (>50%) non-detect	23	12	1.49	0.266	0.0904	91	64	NA	NA	NA	8	2	0.807	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	11	1.32	NA	NA	NA	NA	NA	NA	NA	8	2	0.763	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	45	22	0.936	NA	NA	NA	NA	NA	NA	NA	8	3	0.757	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Barium, Total	Probably Increasing	No Trend	23	23	0.365	0.282	0.0673	93.3	70	NA	NA	NA	8	8	0.333	2021-05-19 to 2024-11-07	0.473	0.135	86.5	13	NA	NA	NA
CCR-BK-2	Barium, Total	Stable	Decreasing	23	23	0.574	-0.228	0.143	85.7	-56	NA	NA	NA	8	8	0.157	2021-05-19 to 2024-11-06	-0.643	0.0416	95.8	-17	-7.4e-06	0.04	-0.0027
CCR-LF-1	Barium, Total	Stable	Stable	23	23	0.613	-0.0559	0.731	26.9	-14	NA	NA	NA	8	8	0.788	2021-05-20 to 2024-11-07	-0.0364	1	0	-1	NA	NA	NA
CCR-LF-2	Barium, Total	No Trend	Stable	21	19	1.93	-0.164	0.339	66.1	-32	NA	NA	NA	8	8	0.141	2021-05-20 to 2024-11-08	-0.0772	0.898	10.2	-2	NA	NA	NA
CCR-LF-3	Barium, Total	Decreasing	No Trend	23	23	0.221	-0.611	0.0000821	100	-149	-4.2e-06	0.027	-0.0015	8	8	0.0792	2021-05-20 to 2024-11-07	0.483	0.149	85.1	12	NA	NA	NA
CCR-LF-4	Barium, Total	No Trend	Probably Increasing	21	19	1.15	-0.0624	0.731	26.9	-12	NA	NA	NA	8	8	0.354	2021-05-19 to 2024-11-07	0.624	0.0624	93.8	14	NA	NA	NA
CCR-LF-5	Barium, Total	Decreasing	No Trend	23	23	0.149	-0.312	0.0474	95.3	-75	-9.8e-07	0.027	-0.00036	8	8	0.213	2021-05-19 to 2024-11-07	0.0364	1	0	1	NA	NA	NA
CCR-LF-6	Barium, Total	Increasing	No Trend	23	23	0.687	0.527	0.000663	99.9	129	3.3e-06	0.017	0.0012	8	8	0.819	2021-05-19 to 2024-11-08	0.286	0.386	61.4	8	NA	NA	NA
Pooled Background	Barium, Total	No Trend	Stable	46	46	0.469	0.0425	0.69	31	43	NA	NA	NA	8	8	0.424	NA	-0.0378	1	0	-1	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data for Radium-226 & 228 in CCR-BK-2 due to presence of statistically significant seasonal trend, determined by review of Kruskall Wallis test results (95% confidence level) and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-BK-1	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.195	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	3	0.274	NA	NA	NA	NA	NA	NA	NA	8	1	0.263	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Beryllium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	4	1.82	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	Beryllium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	5	1.58	NA	NA	NA	NA	NA	NA	NA	8	1	0.254	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	21	1	0.184	NA	NA	NA	NA	NA	NA	NA	8	1	0.319	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	21	1	0.146	NA	NA	NA	NA	NA	NA	NA	8	1	0.25	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	44	4	0.235	NA	NA	NA	NA	NA	NA	NA	8	1	0.263	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.198	NA	NA	NA	NA	NA	NA	NA	8	1	0.363	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.164	NA	NA	NA	NA	NA	NA	NA	8	1	0.297	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.177	NA	NA	NA	NA	NA	NA	NA	8	1	0.323	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Cadmium, Total	Increasing	Stable	23	22	0.807	0.612	0.0000523	100	154	1.4e-06	0.0028	0.00053	8	8	0.251	2021-05-20 to 2024-11-08	-0.143	0.711	28.9	-4	NA	NA	NA
CCR-LF-3	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	4	0.396	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	23	1	1.39	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Cadmium, Total	Increasing	Stable	23	19	2.68	0.346	0.0243	97.6	86	4.5e-08	0.00018	1.7e-05	8	6	0.75	2021-05-19 to 2024-11-07	-0.222	0.53	47	-6	NA	NA	NA
CCR-LF-6	Cadmium, Total	Probably Increasing	No Trend	23	16	1.54	0.287	0.0677	93.2	69	NA	NA	NA	8	5	1.37	2021-05-19 to 2024-11-08	-0.189	0.61	39	-5	NA	NA	NA
Pooled Background	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	46	2	0.179	NA	NA	NA	NA	NA	NA	NA	8	2	0.491	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Chromium, Total	No Trend	No Trend	22	15	0.635	0.063	0.711	28.9	14	NA	NA	NA	8	4	0.496	2021-05-19 to 2024-11-07	0.265	0.445	55.5	7	NA	NA	NA
CCR-BK-2	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	6	0.64	NA	NA	NA	NA	NA	NA	NA	8	2	0.531	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	11	0.617	NA	NA	NA	NA	NA	NA	NA	8	2	0.458	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	6	1.43	NA	NA	NA	NA	NA	NA	NA	8	0	0.497	2021-05-20 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	Chromium, Total	No Trend	No Trend	22	14	0.434	0.00908	0.977	2.3	2	NA	NA	NA	8	4	0.633	2021-05-20 to 2024-11-07	0.34	0.311	68.9	9	NA	NA	NA
CCR-LF-4	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	1.27	NA	NA	NA	NA	NA	NA	NA	8	1	0.66	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	8	1.49	NA	NA	NA	NA	NA	NA	NA	8	1	0.47	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data for Radium-226 & 228 in CCR-BK-2 due to presence of statistically significant seasonal trend, determined by review of Kruskall Wallis test results (95% confidence level) and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-LF-6	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	3	0.615	NA	NA	NA	NA	NA	NA	NA	8	1	0.529	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Stable	44	21	0.64	NA	NA	NA	NA	NA	NA	NA	8	4	0.545	NA	-0.0378	1	0	-1	NA	NA	NA
CCR-BK-1	Cobalt, Total	Stable	Not Evaluated - Majority of data (>50%) non-detect	22	16	0.897	-0.232	0.147	85.3	-52	NA	NA	NA	8	3	0.472	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Cobalt, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	10	1.48	NA	NA	NA	NA	NA	NA	NA	8	2	0.53	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Cobalt, Total	Increasing	Not Evaluated - Majority of data (>50%) non-detect	23	14	0.606	0.411	0.00847	99.2	99	1.6e-07	0.00021	6e-05	8	3	0.433	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Cobalt, Total	Increasing	Stable	23	23	0.231	0.452	0.00401	99.6	108	1.5e-06	0.0075	0.00056	8	8	0.0968	2021-05-20 to 2024-11-08	-0.371	0.284	71.6	-9	NA	NA	NA
CCR-LF-3	Cobalt, Total	Stable	Not Evaluated - Majority of data (>50%) non-detect	22	13	0.471	-0.0274	0.886	11.4	-6	NA	NA	NA	8	2	0.571	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Cobalt, Total	Stable	No Trend	23	23	0.339	-0.0282	0.874	12.6	-7	NA	NA	NA	8	8	0.331	2021-05-19 to 2024-11-07	0.5	0.108	89.2	14	NA	NA	NA
CCR-LF-5	Cobalt, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	23	14	1.44	0.07	0.669	33.1	17	NA	NA	NA	8	3	0.614	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Cobalt, Total	Probably Increasing	No Trend	22	18	3.08	0.281	0.0745	92.5	64	NA	NA	NA	8	6	2.27	2021-05-19 to 2024-11-08	-0.327	0.319	68.1	-9	NA	NA	NA
Pooled Background	Cobalt, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	45	26	1.26	-0.0646	0.559	44.1	-59	NA	NA	NA	8	3	0.448	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Fluoride	Decreasing	Decreasing	22	20	0.236	-0.364	0.0217	97.8	-82	-3.9e-05	0.34	-0.014	8	7	0.309	2021-05-19 to 2024-11-07	-0.667	0.0327	96.7	-18	-0.00017	0.35	-0.06
CCR-BK-2	Fluoride	Stable	Stable	21	18	0.344	-0.0344	0.855	14.5	-7	NA	NA	NA	8	6	0.437	2021-05-19 to 2024-11-06	-0.214	0.536	46.4	-6	NA	NA	NA
CCR-LF-1	Fluoride	Stable	Stable	22	19	0.255	-0.155	0.335	66.5	-35	NA	NA	NA	8	7	0.263	2021-05-20 to 2024-11-07	0	1	0	0	NA	NA	NA
CCR-LF-2	Fluoride	Not Evaluated - Majority of data (>50%) non-detect	Decreasing	22	6	1.76	NA	NA	NA	NA	NA	NA	NA	8	6	1.08	2021-05-20 to 2024-11-08	-0.691	0.0248	97.5	-19	-0.0022	2.6	-0.8
CCR-LF-3	Fluoride	Stable	Stable	20	18	0.324	-0.0917	0.602	39.8	-17	NA	NA	NA	8	7	0.351	2021-05-20 to 2024-11-07	-0.0364	1	0	-1	NA	NA	NA
CCR-LF-4	Fluoride	Decreasing	No Trend	23	12	0.792	-0.326	0.0396	96	-77	-0.00012	1	-0.044	8	8	1.01	2021-05-19 to 2024-11-07	0.214	0.536	46.4	6	NA	NA	NA
CCR-LF-5	Fluoride	No Trend	Stable	21	17	0.671	0.103	0.543	45.7	21	NA	NA	NA	8	8	0.223	2021-05-19 to 2024-11-07	0	1	0	0	NA	NA	NA
CCR-LF-6	Fluoride	No Trend	Probably Increasing	22	22	0.273	0.0307	0.865	13.5	7	NA	NA	NA	8	8	0.186	2021-05-19 to 2024-11-08	0.593	0.0595	94	16	NA	NA	NA
Pooled Background	Fluoride	Stable	No Trend	43	38	0.414	-0.129	0.232	76.8	-115	NA	NA	NA	8	7	0.27	NA	0.0741	0.9	10	2	NA	NA	NA
CCR-BK-1	Lead, Total	No Trend	No Trend	23	18	0.629	0.137	0.381	61.9	34	NA	NA	NA	8	4	0.521	2021-05-19 to 2024-11-07	0.0806	0.894	10.6	2	NA	NA	NA
CCR-BK-2	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	8	1.42	NA	NA	NA	NA	NA	NA	NA	8	2	0.482	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	10	0.477	NA	NA	NA	NA	NA	NA	NA	8	3	0.412	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Lead, Total	No Trend	Increasing	22	13	1.57	0.112	0.495	50.5	25	NA	NA	NA	8	6	0.51	2021-05-20 to 2024-11-08	0.691	0.0248	97.5	19	6e-07	0.00032	0.00022
CCR-LF-3	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.325	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Lead, Total	No Trend	No Trend	22	11	2.97	0.158	0.338	66.2	34	NA	NA	NA	8	5	0.811	2021-05-19 to 2024-11-07	0.265	0.445	55.5	7	NA	NA	NA
CCR-LF-5	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	8	1.7	NA	NA	NA	NA	NA	NA	NA	8	1	0.0349	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	0.639	NA	NA	NA	NA	NA	NA	NA	8	1	0.61	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data for Radium-226 & 228 in CCR-BK-2 due to presence of statistically significant seasonal trend, determined by review of Kruskall Wallis test results (95% confidence level) and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
Pooled Background	**Lead, Total**	No Trend	Not Evaluated - Majority of data (>50%) non-detect	46	**26**	**1.52**	**0.0889**	**0.417**	**58.3**	**83**	**NA**	**NA**	**NA**	8	3	0.293	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	**Lithium, Total**	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	**8**	**1.01**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	5	0.427	2021-05-19 to 2024-11-07	0.255	0.454	54.6	7	NA	NA	NA
CCR-BK-2	**Lithium, Total**	Not Evaluated - Majority of data (>50%) non-detect	Stable	23	**6**	**0.942**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	5	0.619	2021-05-19 to 2024-11-06	-0.0364	1	0	-1	NA	NA	NA
CCR-LF-1	**Lithium, Total**	Decreasing	No Trend	23	**14**	**1.08**	**-0.547**	**0.000436**	**100**	**-132**	**-3.6e-06**	**0.013**	**-0.0013**	8	7	0.276	2021-05-20 to 2024-11-07	0.182	0.618	38.2	5	NA	NA	NA
CCR-LF-2	**Lithium, Total**	Decreasing	No Trend	23	**18**	**1.35**	**-0.31**	**0.0461**	**95.4**	**-76**	**-3.5e-06**	**0.026**	**-0.0013**	8	8	0.0587	2021-05-20 to 2024-11-08	0.303	0.41	59	7	NA	NA	NA
CCR-LF-3	**Lithium, Total**	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	**4**	**0.98**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	1	0.379	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	**Lithium, Total**	Stable	Increasing	23	**23**	**0.202**	**-0.226**	**0.144**	**85.6**	**-56**	**NA**	**NA**	**NA**	8	8	0.246	2021-05-19 to 2024-11-07	0.837	0.00609	99.4	23	3.2e-05	0.058	0.012
CCR-LF-5	**Lithium, Total**	Stable	No Trend	23	**22**	**0.273**	**-0.228**	**0.149**	**85.1**	**-55**	**NA**	**NA**	**NA**	8	8	0.0827	2021-05-19 to 2024-11-07	0.491	0.129	87.1	13	NA	NA	NA
CCR-LF-6	**Lithium, Total**	Decreasing	Stable	23	**23**	**0.173**	**-0.431**	**0.00686**	**99.3**	**-101**	**-1.8e-06**	**0.02**	**-0.00067**	8	8	0.153	2021-05-19 to 2024-11-08	-0.309	0.369	63.1	-8	NA	NA	NA
Pooled Background	**Lithium, Total**	Not Evaluated - Majority of data (>50%) non-detect	Stable	46	**14**	**0.967**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	5	0.518	NA	-0.113	0.799	20.1	-3	NA	NA	NA
CCR-BK-1	**Mercury, Total**	Not Evaluated - No detected results	Not Evaluated - No detected results	22	**0**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	**Mercury, Total**	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	**2**	**0.109**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	0	0	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	**Mercury, Total**	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	**1**	**0.0758**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	1	0.129	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	**Mercury, Total**	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	**1**	**0.0648**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	1	0.11	2021-05-20 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	**Mercury, Total**	Not Evaluated - No detected results	Not Evaluated - No detected results	22	**0**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	**Mercury, Total**	Not Evaluated - No detected results	Not Evaluated - No detected results	22	**0**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	**Mercury, Total**	Increasing	No Trend	22	**16**	**0.495**	**0.398**	**0.0129**	**98.7**	**88**	**3.8e-08**	**0.00011**	**1.4e-05**	8	7	0.419	2021-05-19 to 2024-11-07	0.327	0.319	68.1	9	NA	NA	NA
CCR-LF-6	**Mercury, Total**	Not Evaluated - No detected results	Not Evaluated - No detected results	22	**0**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	0	0	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	**Mercury, Total**	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	44	**2**	**0.0762**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	0	0	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	**Molybdenum, Total**	Stable	Increasing	22	**20**	**0.683**	**-0.237**	**0.134**	**86.6**	**-54**	**NA**	**NA**	**NA**	8	8	0.439	2021-05-19 to 2024-11-07	0.857	0.00443	99.6	24	1.6e-06	0.00024	0.00059
CCR-BK-2	**Molybdenum, Total**	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	**10**	**0.61**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	4	0.751	2021-05-19 to 2024-11-06	0.403	0.232	76.8	10	NA	NA	NA
CCR-LF-1	**Molybdenum, Total**	Stable	No Trend	23	**20**	**0.825**	**-0.215**	**0.167**	**83.3**	**-53**	**NA**	**NA**	**NA**	8	7	0.892	2021-05-20 to 2024-11-07	0.473	0.135	86.5	13	NA	NA	NA
CCR-LF-2	**Molybdenum, Total**	No Trend	No Trend	22	**16**	**1.66**	**-0.144**	**0.377**	**62.3**	**-32**	**NA**	**NA**	**NA**	8	8	0.13	2021-05-20 to 2024-11-08	0.276	0.437	56.3	7	NA	NA	NA
CCR-LF-3	**Molybdenum, Total**	No Trend	No Trend	22	**18**	**0.761**	**0.0841**	**0.61**	**39**	**19**	**NA**	**NA**	**NA**	8	5	0.856	2021-05-20 to 2024-11-07	0.322	0.358	64.2	8	NA	NA	NA
CCR-LF-4	**Molybdenum, Total**	Increasing	No Trend	23	**22**	**0.247**	**0.471**	**0.00226**	**99.8**	**116**	**2.3e-06**	**0.02**	**0.00085**	8	8	0.181	2021-05-19 to 2024-11-07	0.4	0.212	78.8	11	NA	NA	NA
CCR-LF-5	**Molybdenum, Total**	No Trend	No Trend	23	**15**	**2.35**	**-0.153**	**0.334**	**66.6**	**-37**	**NA**	**NA**	**NA**	8	7	1.01	2021-05-19 to 2024-11-07	0.357	0.266	73.4	10	NA	NA	NA
CCR-LF-6	**Molybdenum, Total**	Stable	No Trend	22	**18**	**0.895**	**-0.0356**	**0.842**	**15.8**	**-8**	**NA**	**NA**	**NA**	8	8	1.04	2021-05-19 to 2024-11-08	0.182	0.618	38.2	5	NA	NA	NA
Pooled Background	**Molybdenum, Total**	Stable	No Trend	45	**30**	**0.707**	**-0.139**	**0.201**	**79.9**	**-129**	**NA**	**NA**	**NA**	8	5	0.579	NA	0.0378	1	0	1	NA	NA	NA
CCR-BK-1	**Radium-226 & 228**	Increasing	Stable	20	**11**	**0.88**	**0.495**	**0.00255**	**99.7**	**94**	**0.00018**	**0.25**	**0.067**	8	5	0.663	2021-05-19 to 2024-11-07	-0.0714	0.902	9.8	-2	NA	NA	NA
CCR-BK-2	**Radium-226 & 228**	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	**5**	**0.904**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	2	0.862	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	**Radium-226 & 228**	No Trend	No Trend	19	**18**	**1.32**	**0.216**	**0.208**	**79.2**	**37**	**NA**	**NA**	**NA**	8	7	1.25	2021-05-20 to 2024-11-07	-0.286	0.386	61.4	-8	NA	NA	NA
CCR-LF-2	**Radium-226 & 228**	Increasing	Stable	22	**22**	**0.294**	**0.429**	**0.00572**	**99.4**	**99**	**0.00042**	**1.9**	**0.15**	8	8	0.294	2021-05-20 to 2024-11-08	-0.214	0.536	46.4	-6	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data for Radium-226 & 228 in CCR-BK-2 due to presence of statistically significant seasonal trend, determined by review of Kruskall Wallis test results (95% confidence level) and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)										
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-LF-3	Radium-226 & 228	No Trend	Not Evaluated - Majority of data (>50%) non-detect	22	11	0.616	0.039	0.822	17.8	9	NA	NA	NA	8	3	0.619	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Radium-226 & 228	Stable	No Trend	22	22	0.288	-0.2	0.204	79.6	-46	NA	NA	NA	8	8	0.276	2021-05-19 to 2024-11-07	0.0714	0.902	9.8	2	NA	NA	NA
CCR-LF-5	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	6	1.23	NA	NA	NA	NA	NA	NA	NA	8	3	0.905	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	6	1.95	NA	NA	NA	NA	NA	NA	NA	8	2	1.63	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Stable	42	16	1.16	NA	NA	NA	NA	NA	NA	NA	8	4	0.542	NA	-0.0714	0.902	9.8	-2	NA	NA	NA
CCR-BK-1	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	0.366	NA	NA	NA	NA	NA	NA	NA	8	1	0.173	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	3	0.291	NA	NA	NA	NA	NA	NA	NA	8	1	0.197	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	5	0.41	NA	NA	NA	NA	NA	NA	NA	8	1	0.306	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Selenium, Total	No Trend	Stable	22	16	1.62	0.177	0.268	73.2	40	NA	NA	NA	8	8	0.392	2021-05-20 to 2024-11-08	0	1	0	0	NA	NA	NA
CCR-LF-3	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	10	0.456	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Decreasing	22	7	1.54	NA	NA	NA	NA	NA	NA	NA	8	4	0.568	2021-05-19 to 2024-11-07	-0.725	0.0239	97.6	-18	-3.4e-06	0.0056	-0.0012
CCR-LF-5	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	1.56	NA	NA	NA	NA	NA	NA	NA	8	3	0.525	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Stable	22	8	0.419	NA	NA	NA	NA	NA	NA	NA	8	6	0.54	2021-05-19 to 2024-11-08	-0.231	0.521	47.9	-6	NA	NA	NA
Pooled Background	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	46	7	0.326	NA	NA	NA	NA	NA	NA	NA	8	2	0.259	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.272	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.346	NA	NA	NA	NA	NA	NA	NA	8	2	0.33	2021-05-19 to 2024-11-06	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	3	0.249	NA	NA	NA	NA	NA	NA	NA	8	2	0.198	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Thallium, Total	No Trend	No Trend	21	14	1.69	0.199	0.225	77.5	41	NA	NA	NA	8	8	0.286	2021-05-20 to 2024-11-08	0.286	0.386	61.4	8	NA	NA	NA
CCR-LF-3	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	6	0.51	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-20 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	4	1.46	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	4	1.56	NA	NA	NA	NA	NA	NA	NA	8	1	0.054	2021-05-19 to 2024-11-07	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data for Radium-226 & 228 in CCR-BK-2 due to presence of statistically significant seasonal trend, determined by review of Kruskall Wallis test results (95% confidence level) and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-LF-6	**Thallium, Total**	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	**4**	**0.395**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	2	0.441	2021-05-19 to 2024-11-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	**Thallium, Total**	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	44	**6**	**0.307**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	8	1	0.0875	NA	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data for Radium-226 & 228 in CCR-BK-2 due to presence of statistically significant seasonal trend, determined by review of Kruskall Wallis test results (95% confidence level) and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Table A-5. Interwell Upper Tolerance Limit (UTL) Calculations

		Interwell Background Data Characterization [a]													Groundwater Protection Standard (GWPS) Determination					UTL Calculation Details		
Constituent	Units	n	n, non-detects	max reporting limit	max detected value	mean	median	min sample date	max sample date	standard deviation	coefficient of variation	Mann Kendall trend	Thiel-Sen trend confirmaion	data distribution (Shapiro Wilks) [b]	normalizing data transformation (if any)	UTL	UTL Result Detection Status [c]	MCL/RSL	GWPS	GWPS Source	UTL calculation method	UTL calculation details	Minimum Coverage (%)
Antimony, Total	mg/L	44	40	0.002	0.00062	0.00185	0.002	2016-06-08	2024-11-07	0.000469	0.196	Majority of data (>75%) non-detects	Majority of data (>75%) non-detects	Not normal (Interwell Background)	NA - Original Data	0.002	No	0.006	0.006	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.4
Barium, Total	mg/L	46	0	NA	0.15	0.0438	0.037	2016-06-08	2024-11-07	0.0206	0.469	No Trend	No Trend	Not normal (Interwell Background)	NA - Original Data	0.15	Yes	2	2	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.7
Beryllium, Total	mg/L	44	40	0.001	0.0004	0.000932	0.001	2016-06-08	2024-11-07	0.000219	0.165	Majority of data (>75%) non-detects	Majority of data (>75%) non-detects	Not normal (Interwell Background)	NA - Original Data	0.001	No	0.004	0.004	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.4
Cadmium, Total	mg/L	46	44	0.001	0.00024	0.000964	0.001	2016-06-08	2024-11-07	0.000173	0.146	Majority of data (>75%) non-detects	Majority of data (>75%) non-detects	Not normal (Interwell Background)	NA - Original Data	0.001	No	0.005	0.005	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.7
Chromium, Total	mg/L	44	23	0.005	0.0087	0.0026	0.002	2016-06-08	2024-11-07	0.00166	0.876	No Trend	No Trend	Not normal (Interwell Background)	NA - Original Data	0.0087	Yes	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.4
Fluoride	mg/L	43	5	0.23	0.38	0.228	0.2	2016-08-10	2024-11-07	0.0942	0.469	Stable	No Trend	Not normal (Interwell Background)	NA - Original Data	0.38	Yes	4	4	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.3
Lead, Total	mg/L	46	20	0.001	0.011	0.00105	0.001	2016-06-08	2024-11-07	0.00161	1.95	No Trend	No Trend	Not normal (Interwell Background)	NA - Original Data	0.011	Yes	0.015	0.015	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.7
Mercury, Total	mg/L	44	42	0.0002	0.0002	0.000198	0.0002	2016-06-08	2024-11-07	1.51e-05	0.147	Majority of data (>75%) non-detects	Majority of data (>75%) non-detects	Not normal (Interwell Background)	NA - Original Data	0.0002	No	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.4
Molybdenum, Total	mg/L	45	15	0.005	0.0034	0.00258	0.0017	2016-06-08	2024-11-07	0.00183	0.456	Stable	No Trend	Not normal (Interwell Background)	NA - Original Data	0.005	No	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.6
Radium-226 & 228	pCi/L	42	26	2.74	3.13	0.62	0.39	2016-06-08	2024-11-07	0.722	1.34	Probably Increasing	No Trend	Not normal (Interwell Background)	NA - Original Data	3.13	Yes	5	5	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.1
Selenium, Total	mg/L	46	39	0.005	0.0027	0.00442	0.005	2016-06-08	2024-11-07	0.00144	0.263	Majority of data (>75%) non-detects	Majority of data (>75%) non-detects	Not normal (Interwell Background)	NA - Original Data	0.005	No	0.05	0.05	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.7
Thallium, Total	mg/L	44	38	0.001	0.00076	0.000898	0.001	2016-06-08	2024-11-07	0.000276	0.269	Majority of data (>75%) non-detects	Majority of data (>75%) non-detects	Not normal (Interwell Background)	NA - Original Data	0.001	No	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.4

Note:

[a] Interwell background datasets are analyte specific and include data collected from background wells (CCR-BK-1 and CCR-BK-2). Interwell background datasets were re-tested for outliers, secular trends, and data normality. No outliers were removed.

[b] Parametric tolerance limit calculations were performed on normally distributed background data. If background data were not normally distributed, non-parametric tolerance limit calculations were performed.

[c] In some cases, the `maximum value` selected as the UTL is from a non-detect result, either because all results are non-detect or because reporting limit(s) exceed the maximum detected value.

Units = mg/L, milligrams per liter. pCi/L = picocuries per liter.

Intrawell Upper Prediction Limits were calculated for Arsenic, Cobalt, and Lithium.

Table A-6. Intrawell Upper Prediction Limit (UPL) Calculations

			Baseline Data Characterization [a]												Prediction Limits		Parametric UPL Calculation Statistics			Non-Parametric UPL Calculation Statistics	
Location	Constituent	Units	Baseline Distribution [a]	Prediction Interval Calculation	min baseline sample date	max baseline sample sample	n	n, non-detects	max	mean	standard deviation	Trend (Baseline Data)	degrees of freedom	future samples (M)	Prediction Limit Calculation Method	UPL	confidence level (%)	t (percentile of student's t-test)	t quantile	actual confidence level (%)	false positive rate (%)
CCR-LF-1	Arsenic, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	5	0.005	0.00107	0.00103	Stable	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.005	NA	NA	NA	83.3	16.7
CCR-LF-2	Arsenic, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	6	0.025	0.00513	0.00596	Stable	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.025	NA	NA	NA	83.3	16.7
CCR-LF-3	Arsenic, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	7	0.0088	0.00124	0.00205	No Trend	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0088	NA	NA	NA	83.3	16.7
CCR-LF-4	Arsenic, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-07	2023-05-12	20	0	0.035	0.0185	0.00757	Increasing	19	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0427	99	0.9975	3.174	NA	NA
CCR-LF-5	Arsenic, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	8	0.015	0.00223	0.00376	No Trend	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.015	NA	NA	NA	83.3	16.7
CCR-LF-6	Arsenic, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	9	0.0097	0.00152	0.0023	No Trend	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0097	NA	NA	NA	83.3	16.7
CCR-LF-1	Cobalt, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	7	0.001	0.000436	0.000268	Increasing	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.001	NA	NA	NA	83.3	16.7
CCR-LF-2	Cobalt, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-08	2023-05-12	20	0	0.014	0.00972	0.00234	Increasing	19	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0173	99	0.9975	3.174	NA	NA
CCR-LF-3	Cobalt, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	19	7	0.001	0.000458	0.000182	Decreasing	18	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.001	NA	NA	NA	82.6	17.4
CCR-LF-4	Cobalt, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-07	2023-05-12	20	0	0.0018	0.00107	0.000393	Stable	19	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.00234	99	0.9975	3.174	NA	NA
CCR-LF-5	Cobalt, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	7	0.005	0.000815	0.00121	No Trend	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.005	NA	NA	NA	83.3	16.7
CCR-LF-6	Cobalt, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-08	2023-05-12	19	4	0.016	0.00117	0.0036	Increasing	18	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.013	99	0.9975	3.197	NA	NA
CCR-LF-1	Lithium, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	9	0.05	0.0223	0.0218	Decreasing	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.05	NA	NA	NA	83.3	16.7
CCR-LF-2	Lithium, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	5	0.25	0.0431	0.0567	Probably Decreasing	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.25	NA	NA	NA	83.3	16.7
CCR-LF-3	Lithium, Total	mg/L	Not normal (Baseline, 99%)	Non-Parametric	2016-06-08	2023-05-12	20	16	0.05	0.0251	0.022	Decreasing	19	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.05	NA	NA	NA	83.3	16.7
CCR-LF-4	Lithium, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-07	2023-05-12	20	0	0.12	0.0842	0.0189	Decreasing	19	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.142	99	0.9975	3.174	NA	NA
CCR-LF-5	Lithium, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-08	2023-05-12	20	1	0.05	0.0247	0.0071	Stable	19	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0472	99	0.9975	3.174	NA	NA
CCR-LF-6	Lithium, Total	mg/L	Normal (Baseline, 99% Confidence)	Parametric	2016-06-08	2023-05-12	20	0	0.023	0.0186	0.00295	Probably Decreasing	19	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0283	99	0.9975	3.174	NA	NA

Note:

[a] Baseline datasets were re-tested for outliers, secular trends, and data normality. No statistical outliers were removed.

Table A-7. Confidence Intervals

			Confidence Interval (CI) Dataset						CI Calculation [a]			SSL Confirmation		Non-Parametric CI Statistics (if applicable)	
Location	Constituent	Units	n	max (Rank n)	min (Rank 1)	median	mean	standard deviation	CI calculation method	degrees of freedom	95% Confidence LCL	GWPS	LCL > GWPS?	bootstrap iterations	bootstrap median
CCR-LF-2	Cadmium, Total	mg/L	23	0.025	0.00075	0.0045	0.00577	0.0047	Bootstrap Calculation of the Confidence Interval Around the Median (Non-Parametric)	22	0.004	0.005	No	10000	0.0043

Note:

Confidence intervals are calculated for analyte/well pairs with GWPS exceedances in the sampling event dataset.

[a] The 95% lower confience level (LCL) is compared to the Groundwater Protection Standard (GWPS) to confirm a statistically significant level (SSL).

Table A-8. Groundwater Protection Standard (GWPS) Summary

Background Location	Constituent	Units	Background Threshold Value (BTV)	BTV Type	MCL/RSL	GWPS	GWPS Source	BTV Calculation Method
CCR-BK-1 & CCR-BK-2	Antimony, Total	mg/L	0.002	Interwell UTL	0.006	0.006	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-LF-1	Arsenic, Total	mg/L	0.005	Intrawell UPL	0.01	0.01	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-2	Arsenic, Total	mg/L	0.025	Intrawell UPL	0.01	0.025	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-3	Arsenic, Total	mg/L	0.0088	Intrawell UPL	0.01	0.01	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-4	Arsenic, Total	mg/L	0.0427	Intrawell UPL	0.01	0.0427	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-5	Arsenic, Total	mg/L	0.015	Intrawell UPL	0.01	0.015	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-6	Arsenic, Total	mg/L	0.0097	Intrawell UPL	0.01	0.01	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-BK-1 & CCR-BK-2	Barium, Total	mg/L	0.15	Interwell UTL	2	2	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Beryllium, Total	mg/L	0.001	Interwell UTL	0.004	0.004	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Cadmium, Total	mg/L	0.001	Interwell UTL	0.005	0.005	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Chromium, Total	mg/L	0.0087	Interwell UTL	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-LF-1	Cobalt, Total	mg/L	0.001	Intrawell UPL	0.006	0.006	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-2	Cobalt, Total	mg/L	0.0173	Intrawell UPL	0.006	0.0173	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-3	Cobalt, Total	mg/L	0.001	Intrawell UPL	0.006	0.006	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-4	Cobalt, Total	mg/L	0.00234	Intrawell UPL	0.006	0.006	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-5	Cobalt, Total	mg/L	0.005	Intrawell UPL	0.006	0.006	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-6	Cobalt, Total	mg/L	0.013	Intrawell UPL	0.006	0.013	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-BK-1 & CCR-BK-2	Fluoride	mg/L	0.38	Interwell UTL	4	4	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Lead, Total	mg/L	0.011	Interwell UTL	0.015	0.015	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-LF-1	Lithium, Total	mg/L	0.05	Intrawell UPL	0.04	0.05	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-2	Lithium, Total	mg/L	0.25	Intrawell UPL	0.04	0.25	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-3	Lithium, Total	mg/L	0.05	Intrawell UPL	0.04	0.05	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-4	Lithium, Total	mg/L	0.142	Intrawell UPL	0.04	0.142	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-5	Lithium, Total	mg/L	0.0472	Intrawell UPL	0.04	0.0472	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-6	Lithium, Total	mg/L	0.0283	Intrawell UPL	0.04	0.04	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-BK-1 & CCR-BK-2	Mercury, Total	mg/L	0.0002	Interwell UTL	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Molybdenum, Total	mg/L	0.005	Interwell UTL	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Radium-226 & 228	pCi/L	3.13	Interwell UTL	5	5	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Selenium, Total	mg/L	0.005	Interwell UTL	0.05	0.05	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Thallium, Total	mg/L	0.001	Interwell UTL	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)

Table A-9. Groundwater Protection Standard (GWPS) Comparison Table

Location	Constituent	Units	Sample Date	Sample Result	Background Threshold Value (BTV)	BTV Type	GWPS	GWPS Exceedance	LCL	SSL Confirmed
CCR-LF-2	Cadmium, Total	mg/L	2024-11-08	0.006	0.001	Interwell UTL	0.005	Yes	0.004	No
CCR-LF-1	Antimony, Total	mg/L	2024-11-07	0.00058 J	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-2	Antimony, Total	mg/L	2024-11-08	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-3	Antimony, Total	mg/L	2024-11-07	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-4	Antimony, Total	mg/L	2024-11-07	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-5	Antimony, Total	mg/L	2024-11-07	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-6	Antimony, Total	mg/L	2024-11-08	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-1	Arsenic, Total	mg/L	2024-11-07	0.0017 J	0.005	Intrawell UPL	0.01	No	NA	No
CCR-LF-2	Arsenic, Total	mg/L	2024-11-08	0.0023 J	0.025	Intrawell UPL	0.025	No	NA	No
CCR-LF-3	Arsenic, Total	mg/L	2024-11-07	0.005 U	0.0088	Intrawell UPL	0.01	No	NA	No
CCR-LF-4	Arsenic, Total	mg/L	2024-11-07	0.017	0.0427	Intrawell UPL	0.0427	No	NA	No
CCR-LF-5	Arsenic, Total	mg/L	2024-11-07	0.005 U	0.015	Intrawell UPL	0.015	No	NA	No
CCR-LF-6	Arsenic, Total	mg/L	2024-11-08	0.005 U	0.0097	Intrawell UPL	0.01	No	NA	No
CCR-LF-1	Barium, Total	mg/L	2024-11-07	0.094	0.15	Interwell UTL	2	No	NA	No
CCR-LF-2	Barium, Total	mg/L	2024-11-08	0.011	0.15	Interwell UTL	2	No	NA	No
CCR-LF-3	Barium, Total	mg/L	2024-11-07	0.018	0.15	Interwell UTL	2	No	NA	No
CCR-LF-4	Barium, Total	mg/L	2024-11-07	0.011	0.15	Interwell UTL	2	No	NA	No
CCR-LF-5	Barium, Total	mg/L	2024-11-07	0.024	0.15	Interwell UTL	2	No	NA	No
CCR-LF-6	Barium, Total	mg/L	2024-11-08	0.024	0.15	Interwell UTL	2	No	NA	No
CCR-LF-1	Beryllium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-2	Beryllium, Total	mg/L	2024-11-08	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-3	Beryllium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-4	Beryllium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-5	Beryllium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-6	Beryllium, Total	mg/L	2024-11-08	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-1	Cadmium, Total	mg/L	2024-11-07	0.00018 J	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-3	Cadmium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-4	Cadmium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-5	Cadmium, Total	mg/L	2024-11-07	0.00038 J	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-6	Cadmium, Total	mg/L	2024-11-08	0.000083 J	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-1	Chromium, Total	mg/L	2024-11-07	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-2	Chromium, Total	mg/L	2024-11-08	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-3	Chromium, Total	mg/L	2024-11-07	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-4	Chromium, Total	mg/L	2024-11-07	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-5	Chromium, Total	mg/L	2024-11-07	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-6	Chromium, Total	mg/L	2024-11-08	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-1	Cobalt, Total	mg/L	2024-11-07	0.00031 J	0.001	Intrawell UPL	0.006	No	NA	No
CCR-LF-2	Cobalt, Total	mg/L	2024-11-08	0.011	0.0173	Intrawell UPL	0.0173	No	NA	No
CCR-LF-3	Cobalt, Total	mg/L	2024-11-07	0.000091 J	0.001	Intrawell UPL	0.006	No	NA	No
CCR-LF-4	Cobalt, Total	mg/L	2024-11-07	0.0009 J	0.00234	Intrawell UPL	0.006	No	NA	No
CCR-LF-5	Cobalt, Total	mg/L	2024-11-07	0.00024 J	0.005	Intrawell UPL	0.006	No	NA	No
CCR-LF-6	Cobalt, Total	mg/L	2024-11-08	0.00012 J	0.013	Intrawell UPL	0.013	No	NA	No
CCR-LF-1	Fluoride	mg/L	2024-11-07	0.23	0.38	Interwell UTL	4	No	NA	No
CCR-LF-2	Fluoride	mg/L	2024-11-08	0.37 J	0.38	Interwell UTL	4	No	NA	No
CCR-LF-3	Fluoride	mg/L	2024-11-07	0.19	0.38	Interwell UTL	4	No	NA	No
CCR-LF-4	Fluoride	mg/L	2024-11-07	0.41 J	0.38	Interwell UTL	4	No	NA	No
CCR-LF-5	Fluoride	mg/L	2024-11-07	0.27	0.38	Interwell UTL	4	No	NA	No
CCR-LF-6	Fluoride	mg/L	2024-11-08	0.33	0.38	Interwell UTL	4	No	NA	No
CCR-LF-1	Lead, Total	mg/L	2024-11-07	0.0005 J	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-2	Lead, Total	mg/L	2024-11-08	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-3	Lead, Total	mg/L	2024-11-07	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-4	Lead, Total	mg/L	2024-11-07	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-5	Lead, Total	mg/L	2024-11-07	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-6	Lead, Total	mg/L	2024-11-08	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-1	Lithium, Total	mg/L	2024-11-07	0.0066 J	0.05	Intrawell UPL	0.05	No	NA	No
CCR-LF-2	Lithium, Total	mg/L	2024-11-08	0.019	0.25	Intrawell UPL	0.25	No	NA	No
CCR-LF-3	Lithium, Total	mg/L	2024-11-07	0.008 U	0.05	Intrawell UPL	0.05	No	NA	No
CCR-LF-4	Lithium, Total	mg/L	2024-11-07	0.099	0.142	Intrawell UPL	0.142	No	NA	No
CCR-LF-5	Lithium, Total	mg/L	2024-11-07	0.024	0.0472	Intrawell UPL	0.0472	No	NA	No
CCR-LF-6	Lithium, Total	mg/L	2024-11-08	0.017	0.0283	Intrawell UPL	0.04	No	NA	No

Note:

BTV = Background Threshold Value, which is either the Upper Threshold Limit (UTL) or Upper Prediction Limit (UPL). GWPS = Groundwater Protection Standard, which is the max value between the BTV and the Maximum Contaminant Level/Regional Screening Level. LCL = 95% Lower Confidence Level. SSL = Statistically significant level, which is identified when an event result exceeds the GWPS and the LCL is greater than the GWPS.

Location	Constituent	Units	Sample Date	Sample Result	Background Threshold Value (BTV)	BTV Type	GWPS	GWPS Exceedance	LCL	SSL Confirmed
CCR-LF-1	Mercury, Total	mg/L	2024-11-07	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-2	Mercury, Total	mg/L	2024-11-08	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-3	Mercury, Total	mg/L	2024-11-07	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-4	Mercury, Total	mg/L	2024-11-07	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-5	Mercury, Total	mg/L	2024-11-07	0.00026	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-6	Mercury, Total	mg/L	2024-11-08	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-1	Molybdenum, Total	mg/L	2024-11-07	0.0018 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-2	Molybdenum, Total	mg/L	2024-11-08	0.0031 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-3	Molybdenum, Total	mg/L	2024-11-07	0.005 U	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-4	Molybdenum, Total	mg/L	2024-11-07	0.028	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-5	Molybdenum, Total	mg/L	2024-11-07	0.0013 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-6	Molybdenum, Total	mg/L	2024-11-08	0.0013 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-1	Radium-226 & 228	pCi/L	2024-11-07	1.96 J	3.13	Interwell UTL	5	No	NA	No
CCR-LF-2	Radium-226 & 228	pCi/L	2024-11-08	1.88	3.13	Interwell UTL	5	No	NA	No
CCR-LF-3	Radium-226 & 228	pCi/L	2024-11-07	0.283 UJ	3.13	Interwell UTL	5	No	NA	No
CCR-LF-4	Radium-226 & 228	pCi/L	2024-11-07	4.47	3.13	Interwell UTL	5	No	NA	No
CCR-LF-5	Radium-226 & 228	pCi/L	2024-11-07	0.255 U	3.13	Interwell UTL	5	No	NA	No
CCR-LF-6	Radium-226 & 228	pCi/L	2024-11-08	0.232 U	3.13	Interwell UTL	5	No	NA	No
CCR-LF-1	Selenium, Total	mg/L	2024-11-07	0.0011 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-2	Selenium, Total	mg/L	2024-11-08	0.0044 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-3	Selenium, Total	mg/L	2024-11-07	0.005 U	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-4	Selenium, Total	mg/L	2024-11-07	0.00089 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-5	Selenium, Total	mg/L	2024-11-07	0.0013 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-6	Selenium, Total	mg/L	2024-11-08	0.0023 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-1	Thallium, Total	mg/L	2024-11-07	0.00068 J	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-2	Thallium, Total	mg/L	2024-11-08	0.0013	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-3	Thallium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-4	Thallium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-5	Thallium, Total	mg/L	2024-11-07	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-6	Thallium, Total	mg/L	2024-11-08	0.001 U	0.001	Interwell UTL	0.002	No	NA	No

Note:

BTV = Background Threshold Value, which is either the Upper Threshold Limit (UTL) or Upper Prediction Limit (UPL). GWPS = Groundwater Protection Standard, which is the max value between the BTV and the Maximum Contaminant Level/Regional Screening Level. LCL = 95% Lower Confidence Level. SSL = Statistically significant level, which is identified when an event result exceeds the GWPS and the LCL is greater than the GWPS.

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TECHNICAL MEMORANDUM

September 11, 2025
File No. 0129420-027

TO: Southern Indiana Gas and Electric Company

FROM: Haley & Aldrich, Inc.
Cassidy Sutherland, P.G., Senior Project Manager, Geologist
Steven F. Putrich, P.E., Project Principal

SUBJECT: Statistical Evaluation of the May 2025 Semi-Annual Groundwater Assessment Monitoring Data
Southern Indiana Gas and Electric Company
Landfill
A.B. Brown Generating Station; Posey County, Indiana

Pursuant to Title 40 Code of Federal Regulations (40 CFR) § 257.93 and § 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the May 2025 semi-annual assessment monitoring event for the A.B. Brown Generating Station Landfill. Haley & Aldrich, Inc. (Haley & Aldrich) completed this statistical evaluation to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at statistically significant levels (SSL) greater than the Groundwater Protection Standards (GWPS), consistent with the requirements in 40 CFR § 257.95.

Methods used during this statistical analysis are described in Haley & Aldrich's 2017 *Statistical Data Analysis Plan for the A.B. Brown Generating Station Landfill*. A summary of how applicable performance standards described in 40 CFR § 257.93 (g) were achieved include:

- 40 CFR § 257.93 (g) (1) – Data set distributions were evaluated using basic summary statistics, graphical methods including probability plots, and the Shapiro-Wilk Test for Normality. Data sets were also evaluated for statistical outliers using box plots and either Dixon's Q Test for Outliers or Rosner's Outlier Test depending on sample size. Outlier identification and data set distribution groups are summarized in Attachment A. For background limit calculations, parametric methods were used for normally distributed data sets and non-parametric methods were used for non-normally distributed data sets.
- 40 CFR § 257.93 (g) (2) – Not applicable

- 40 CFR § 257.93 (g) (3) – Not applicable
- 40 CFR § 257.93 (g) (4) – Levels of confidence and additional supporting information for the use of tolerance intervals and prediction limits are included in Attachment A.
- 40 CFR § 257.93 (g) (5) – Non-detect values were accounted for by simple substitution, where the detection limit replaced the non-detect result. Non-detect values are identified and summarized in Attachment A.
- 40 CFR § 257.93 (g) (6) – Time series plots for groundwater monitoring wells included in this evaluation were reviewed to identify potential seasonal variability. No additional statistics to account for seasonality or spatial variability were necessary. Temporal trends were evaluated using the non-parametric Mann-Kendall Trend Test and Theil-Sen Estimator.

Data from the groundwater sampling event for the downgradient monitoring wells (CCR-LF-1 through CCR-LF-6) were compared to the GWPS established from the background dataset for the upgradient monitoring wells (CCR-BK-1 and CCR-BK-2) for detected Appendix IV constituents. The GWPS for each of the Appendix IV constituents has been set equal to the highest value among the maximum contaminant level (MCL), regional screening level (RSL), or background threshold value (BTV). The results of the assessment monitoring statistical evaluation are discussed below and provided in Attachment A.

Development of Groundwater Protection Standards

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR §257.93(f) (1-4)). Haley & Aldrich certified the tolerance limit (TL) as the statistical method used for developing BTVs on January 14, 2019. An alternate source demonstration was performed for arsenic, cobalt, and lithium on July 24, 2019, certifying the prediction limit (PL) as the statistical method for developing BTVs. As noted above, the GWPS for each of the Appendix IV constituents has been set equal to the highest value among the MCL, RSL, or BTV (either the TL or PL). The most recent groundwater sampling result from each compliance well was compared to the GWPS to determine if additional statistical testing is warranted.

STATISTICAL EVALUATION

BTVs are periodically updated per the document *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance, March 2009* (Unified Guidance). Prior to calculating BTVs, data were evaluated for outlier results, data distribution, and spatial and temporal variability. Potential outlier sample results that would warrant removal from the data set based on likely error in sampling or measurement were identified through statistical outlier using the outliers (version 0.15) R programming package and either the Dixon's or Rosner's Test for Outliers. Potential outliers were further evaluated by visual inspection of box plots and probability plots, and field forms and analytical laboratory reports were reviewed as necessary. No sample data were identified as outliers that warranted removal from the dataset.

Background data distributions were assessed using the stats (version 4.3.3) R programming package and either the Shapiro-Wilk or Shapiro-Francia Test for Normality. Data distributions were further evaluated

by visual inspection of probability and distribution plots. Data distributions inform appropriate BTV calculation methods. Background and downgradient data sets were evaluated for spatial and temporal variability by visual inspection of box plots and time series plots and using the Mann-Kendall Trend Tests (Kendall R programming package, version 2.2.1) and Theil-Sen Estimator (trend R programming package, version 1.1.6). Spatial and temporal variability in background data sets inform appropriate BTV calculation methods.

Interwell Background Evaluation

An interwell statistical evaluation was used to determine the TL and identify potential SSLs for detected Appendix IV constituents, except arsenic, cobalt, and lithium. The interwell evaluation compares the most recent value from downgradient compliance wells to a background dataset composed of pooled upgradient well data. TLs were calculated from the pooled background well dataset utilizing R programming language and the EnvStats (version 2.8.1) and tolerance (version 2.0.0) packages. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used. Parametric TLs utilize normally distributed data or data normalized via a transformation of the background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit serve as an appropriate UTL.

Intrawell Background Evaluation

An intrawell statistical evaluation was used for arsenic, cobalt, and lithium, to determine the PL and identify potential SSLs. The intrawell evaluation compares the most recent data point from each downgradient compliance well to its well-specific background dataset, composed of data collected from the same well prior to the most recent sampling event. PLs were calculated from the well-specific background dataset utilizing R programming language and the stats (version 4.3.3) package. The PL procedure is one in which a concentration limit for each constituent at each downgradient well is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a prediction interval is called the UPL. Depending on the data distribution, parametric or non-parametric PL procedures are used. Parametric PLs utilize normally distributed data or data normalized via a transformation of the background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the PL. Note that the PL accounts for future variability based on existing data, so it is possible for the PL to be greater than the maximum measured background concentration.

GWPS Comparison and LCL Calculations

The lower confidence limit (LCL) was calculated for any Appendix IV constituent measured in a downgradient well during the May 2025 sampling event at a concentration greater than the GWPS. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The

confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error. An SSL is indicated when the downgradient well/constituent-specific LCL is greater than the GWPS.

TREND SUMMARY

Mann-Kendall trend analyses were performed on data sets from downgradient wells of sufficient sample size as described above. Results of the trend analysis are summarized in Table 1. Trends indicated for constituents identified as SSLs are summarized below:

- No SSLs were identified during the May 2025 sampling event.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

The sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the May 2025 monitoring event were compared to their respective GWPS (Attachment A). LCLs were calculated where constituents were detected at concentrations greater than the GWPS. An SSL is indicated when the LCL is greater than the GWPS. Based on previous compliance sampling events and statistical evaluations, interwell comparisons were used to evaluate constituents not subject to an Alternative Source Demonstration (ASD) in downgradient monitoring wells. Because a successful ASD was completed for cobalt, arsenic, and lithium, an intrawell statistical analysis was used to evaluate those constituents.

The results of the statistical analyses conducted for detected Appendix IV constituents confirm that no SSL greater than the GWPS was identified at the Landfill, however, the Landfill will remain in Assessment Monitoring.

Enclosure

Table 1 – Trend Summary
Attachment A – Assessment Monitoring Statistical Analysis Summary – May 2025

TABLES

Table 1. Trend Summary

			Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
Location	Chemical	Units	Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-BK-1	Barium, Total	mg/L	Increasing	No Trend	24	24	0.12	0.00264	8	8	0.12	NA
CCR-LF-6	Barium, Total	mg/L	Increasing	Stable	24	24	0.098	0.000984	8	8	0.098	NA
CCR-LF-1	Cobalt, Total	mg/L	Increasing	Not Evaluated - Majority of data (>50%) non-detect	24	14	0.001	2.96e-05	8	2	0.001	NA
CCR-LF-2	Cobalt, Total	mg/L	Increasing	Stable	24	24	0.014	0.000507	8	8	0.013	NA
CCR-LF-4	Molybdenum, Total	mg/L	Increasing	No Trend	24	23	0.029	0.000867	8	8	0.029	NA
CCR-LF-2	Radium-226 & 228	pCi/L	Increasing	Stable	23	23	4.01	0.184	8	8	4.01	NA
CCR-LF-2	Thallium, Total	mg/L	Increasing	Stable	22	15	0.0125	5.04e-05	8	8	0.0013	NA
CCR-LF-3	Barium, Total	mg/L	Decreasing	Increasing	24	24	0.031	-0.00073	8	8	0.0213	0.000499
CCR-BK-1	Chromium, Total	mg/L	No Trend	Increasing	23	15	0.0076	NA	8	4	0.0029	0.000552
CCR-BK-1	Cobalt, Total	mg/L	No Trend	Increasing	23	17	0.0028	NA	8	4	0.00072	4.71e-05
CCR-LF-4	Lithium, Total	mg/L	Stable	Increasing	24	24	0.12	NA	8	8	0.099	0.00596
CCR-BK-1	Molybdenum, Total	mg/L	Stable	Increasing	23	21	0.0034	NA	8	8	0.0025	0.000588
CCR-BK-1	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.001	NA	8	0	0.001	NA
CCR-BK-2	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	2	0.001	NA	8	1	0.001	NA
CCR-LF-1	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.001	NA	8	3	0.001	NA
CCR-LF-2	Antimony, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.025	NA	8	0	0.001	NA
CCR-LF-3	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.0011	NA	8	0	0.001	NA
CCR-LF-4	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.01	NA	8	0	0.001	NA
CCR-LF-5	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	2	0.01	NA	8	1	0.001	NA
CCR-LF-6	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	2	0.0011	NA	8	1	0.001	NA
CCR-BK-1	Arsenic, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	23	13	0.0025	NA	8	2	0.0025	NA
CCR-BK-2	Arsenic, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	9	0.0035	NA	8	2	0.0027	NA
CCR-LF-1	Arsenic, Total	mg/L	No Trend	No Trend	24	17	0.0025	NA	8	5	0.0025	NA
CCR-LF-2	Arsenic, Total	mg/L	Stable	No Trend	24	18	0.0125	NA	8	8	0.0023	NA
CCR-LF-3	Arsenic, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	24	14	0.0088	NA	8	3	0.0025	NA
CCR-LF-4	Arsenic, Total	mg/L	No Trend	Stable	24	24	0.0331	NA	8	8	0.0331	NA
CCR-LF-5	Arsenic, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	24	12	0.015	NA	8	2	0.0025	NA
CCR-LF-6	Arsenic, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	11	0.0097	NA	8	2	0.0043	NA
CCR-BK-2	Barium, Total	mg/L	Stable	Stable	24	24	0.15	NA	8	8	0.049	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

Location	Chemical	Units	Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
			Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-LF-1	Barium, Total	mg/L	Stable	Stable	24	24	0.17	NA	8	8	0.17	NA
CCR-LF-2	Barium, Total	mg/L	No Trend	Stable	22	20	0.125	NA	8	8	0.015	NA
CCR-LF-4	Barium, Total	mg/L	Stable	Stable	22	20	0.05	NA	8	8	0.023	NA
CCR-LF-5	Barium, Total	mg/L	Decreasing	Stable	24	24	0.037	-0.00046	8	8	0.037	NA
CCR-BK-1	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	23	1	0.0005	NA	8	0	0.0005	NA
CCR-BK-2	Beryllium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	3	0.0005	NA	8	1	0.0005	NA
CCR-LF-1	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0005	NA	8	0	0.0005	NA
CCR-LF-2	Beryllium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	4	0.0125	NA	8	0	0.0005	NA
CCR-LF-3	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0005	NA	8	0	0.0005	NA
CCR-LF-4	Beryllium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	5	0.005	NA	8	0	0.0005	NA
CCR-LF-5	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	1	0.0005	NA	8	1	0.0005	NA
CCR-LF-6	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	1	0.0005	NA	8	1	0.0005	NA
CCR-BK-1	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.0005	NA	8	1	0.0005	NA
CCR-BK-2	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.0005	NA	8	1	0.0005	NA
CCR-LF-1	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.0005	NA	8	1	0.0005	NA
CCR-LF-2	Cadmium, Total	mg/L	No Trend	Stable	24	23	0.00998	NA	8	8	0.00825	NA
CCR-LF-3	Cadmium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	24	4	0.0005	NA	8	0	0.0005	NA
CCR-LF-4	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	24	1	0.005	NA	8	0	0.0005	NA
CCR-LF-5	Cadmium, Total	mg/L	Decreasing	No Trend	24	20	0.00406	-3.84e-05	8	7	0.000788	NA
CCR-LF-6	Cadmium, Total	mg/L	No Trend	Probably Decreasing	24	17	0.0047	NA	8	5	0.0047	NA
CCR-BK-2	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	6	0.0087	NA	8	2	0.0047	NA
CCR-LF-1	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	11	0.0062	NA	8	1	0.004	NA
CCR-LF-2	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	6	0.025	NA	8	0	0.0025	NA
CCR-LF-3	Chromium, Total	mg/L	Stable	Not Evaluated - Majority of data (>50%) non-detect	23	14	0.0025	NA	8	3	0.0025	NA
CCR-LF-4	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	0.01	NA	8	1	0.0082	NA
CCR-LF-5	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	8	0.022	NA	8	1	0.0026	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

Location	Chemical	Units	Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
			Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-LF-6	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	3	0.007	NA	8	1	0.007	NA
CCR-BK-2	Cobalt, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	10	0.0062	NA	8	2	0.0015	NA
CCR-LF-3	Cobalt, Total	mg/L	Probably Decreasing	Not Evaluated - Majority of data (>50%) non-detect	23	13	0.00071	NA	8	2	0.0005	NA
CCR-LF-4	Cobalt, Total	mg/L	Stable	No Trend	24	24	0.0018	NA	8	8	0.0015	NA
CCR-LF-5	Cobalt, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	24	15	0.0033	NA	8	3	0.0013	NA
CCR-LF-6	Cobalt, Total	mg/L	No Trend	No Trend	23	19	0.016	NA	8	7	0.016	NA
CCR-BK-1	Fluoride	mg/L	Decreasing	Stable	23	21	0.38	-0.0174	8	7	0.36	NA
CCR-BK-2	Fluoride	mg/L	Stable	Stable	22	19	0.34	NA	8	6	0.34	NA
CCR-LF-1	Fluoride	mg/L	Stable	Stable	23	19	0.32	NA	8	6	0.32	NA
CCR-LF-2	Fluoride	mg/L	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	6	12.5	NA	8	6	4.2	NA
CCR-LF-3	Fluoride	mg/L	Stable	Stable	21	19	0.34	NA	8	8	0.34	NA
CCR-LF-4	Fluoride	mg/L	Probably Decreasing	No Trend	24	12	1.9	NA	8	7	1.9	NA
CCR-LF-5	Fluoride	mg/L	No Trend	Stable	22	18	0.5	NA	8	8	0.3	NA
CCR-LF-6	Fluoride	mg/L	No Trend	Probably Increasing	23	23	0.51	NA	8	8	0.44	NA
CCR-BK-1	Lead, Total	mg/L	Stable	Probably Increasing	24	18	0.0011	NA	8	4	0.00068	NA
CCR-BK-2	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	8	0.011	NA	8	2	0.0024	NA
CCR-LF-1	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	10	0.0019	NA	8	2	0.0019	NA
CCR-LF-2	Lead, Total	mg/L	No Trend	Stable	23	13	0.0125	NA	8	5	0.0014	NA
CCR-LF-3	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.0005	NA	8	0	0.0005	NA
CCR-LF-4	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	11	0.079	NA	8	4	0.0031	NA
CCR-LF-5	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	8	0.005	NA	8	1	0.0011	NA
CCR-LF-6	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	0.0032	NA	8	1	0.0032	NA
CCR-BK-1	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Probably Increasing	24	9	0.025	NA	8	6	0.016	NA
CCR-BK-2	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	No Trend	24	6	0.025	NA	8	5	0.0043	NA
CCR-LF-1	Lithium, Total	mg/L	Decreasing	No Trend	24	14	0.025	-0.00113	8	6	0.0066	NA
CCR-LF-2	Lithium, Total	mg/L	Decreasing	No Trend	24	19	0.125	-0.00131	8	8	0.019	NA
CCR-LF-3	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	4	0.025	NA	8	1	0.004	NA
CCR-LF-5	Lithium, Total	mg/L	Decreasing	No Trend	24	23	0.031	-0.000521	8	8	0.024	NA
CCR-LF-6	Lithium, Total	mg/L	Decreasing	Stable	24	24	0.023	-0.000686	8	8	0.019	NA
CCR-BK-1	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0.0001	NA	8	0	0.0001	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

Location	Chemical	Units	Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
			Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-BK-2	Mercury, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.0002	NA	8	0	0.0001	NA
CCR-LF-1	Mercury, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.00013	NA	8	1	0.00013	NA
CCR-LF-2	Mercury, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.00014	NA	8	1	0.00014	NA
CCR-LF-3	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0.0001	NA	8	0	0.0001	NA
CCR-LF-4	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0.0001	NA	8	0	0.0001	NA
CCR-LF-5	Mercury, Total	mg/L	No Trend	No Trend	23	17	0.000374	NA	8	7	0.000374	NA
CCR-LF-6	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0.0001	NA	8	0	0.0001	NA
CCR-BK-2	Molybdenum, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	10	0.0025	NA	8	3	0.0025	NA
CCR-LF-1	Molybdenum, Total	mg/L	Stable	Probably Increasing	24	20	0.0025	NA	8	6	0.0025	NA
CCR-LF-2	Molybdenum, Total	mg/L	No Trend	Probably Increasing	23	17	0.065	NA	8	8	0.0031	NA
CCR-LF-3	Molybdenum, Total	mg/L	No Trend	Probably Increasing	23	19	0.0056	NA	8	5	0.0037	NA
CCR-LF-5	Molybdenum, Total	mg/L	No Trend	No Trend	24	15	0.025	NA	8	6	0.0025	NA
CCR-LF-6	Molybdenum, Total	mg/L	No Trend	No Trend	23	19	0.0066	NA	8	8	0.0066	NA
CCR-BK-1	Radium-226 & 228	pCi/L	No Trend	Stable	21	11	2.46	NA	8	4	2.46	NA
CCR-BK-2	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	5	3.13	NA	8	2	1.37	NA
CCR-LF-1	Radium-226 & 228	pCi/L	No Trend	No Trend	20	18	8.07	NA	8	6	8.07	NA
CCR-LF-3	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	11	1.36	NA	8	3	1.36	NA
CCR-LF-4	Radium-226 & 228	pCi/L	Stable	Stable	23	23	8.14	NA	8	8	6.79	NA
CCR-LF-5	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	6	2.78	NA	8	2	2.78	NA
CCR-LF-6	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	6	6.53	NA	8	1	6.53	NA
CCR-BK-1	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	4	0.0027	NA	8	1	0.0027	NA
CCR-BK-2	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	3	0.0025	NA	8	1	0.0025	NA
CCR-LF-1	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	5	0.0025	NA	8	1	0.0025	NA
CCR-LF-2	Selenium, Total	mg/L	No Trend	Stable	23	17	0.065	NA	8	8	0.0066	NA
CCR-LF-3	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	10	0.0025	NA	8	0	0.0025	NA
CCR-LF-4	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Stable	23	7	0.025	NA	8	4	0.0025	NA
CCR-LF-5	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	4	0.025	NA	8	3	0.0025	NA
CCR-LF-6	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Stable	23	9	0.0025	NA	8	7	0.0025	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

Location	Chemical	Units	Identified Trends		Trend Analysis on All Available Data				Trend Analysis on Recent Data			
			Trend (All Data)	Trend (Recent Data)	Results, n	Detected Results, n	Max Concentration	Sen Slope (units per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (units per year)
CCR-BK-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.0005	NA	8	0	0.0005	NA
CCR-BK-2	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	4	0.00076	NA	8	2	0.00076	NA
CCR-LF-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	3	0.00068	NA	8	2	0.00068	NA
CCR-LF-3	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	6	0.0005	NA	8	0	0.0005	NA
CCR-LF-4	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	4	0.005	NA	8	0	0.0005	NA
CCR-LF-5	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	0.005	NA	8	1	0.00085	NA
CCR-LF-6	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.0005	NA	8	2	0.0005	NA

Abbreviations: CF = confidence facotr; CV = coefficient of variation; mg/L = milligrams per liter; pCi/L = picocuries per liter.

Notes: *Recent data defined as the 8 most recent data points. MK = Mann Kendall Trend Test. Secular Trend Classification based on Aziz (2003) guidance and MK Results. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Additional information about trend analysis provided in Attachment A.

ATTACHMENT A
Assessment Monitoring Statistical Analysis Summary

Table A-1. Descriptive Statistics

Location	Constituent	Units	n	n, non-detects	percent of non-detects	max	min	mean	median	standard deviation	variance	reporting limit range	date range
CCR-BK-1	Antimony, Total	mg/L	23	21	91	0.00200	5.6e-05	0.00185	0.002	0.00051	2.6e-07	0.002 - 0.002	2016-08-11 to 2025-05-07
CCR-BK-2	Antimony, Total	mg/L	23	21	91	0.00200	0.00048	0.00187	0.002	0.00042	1.7e-07	0.002 - 0.002	2016-06-08 to 2025-05-07
CCR-LF-1	Antimony, Total	mg/L	22	18	82	0.00200	0.00058	0.00174	0.002	0.00056	3.1e-07	0.002 - 0.002	2016-06-08 to 2025-05-07
CCR-LF-2	Antimony, Total	mg/L	22	21	95	0.05000	0.002	0.00746	0.002	0.012	0.00014	0.002 - 0.05	2016-06-08 to 2025-05-08
CCR-LF-3	Antimony, Total	mg/L	22	20	91	0.00200	0.00066	0.0019	0.002	0.00034	1.1e-07	0.002 - 0.002	2016-06-08 to 2025-05-07
CCR-LF-4	Antimony, Total	mg/L	22	22	100	0.02000	0.002	0.00527	0.002	0.0071	5e-05	0.002 - 0.02	2016-06-07 to 2025-05-08
CCR-LF-5	Antimony, Total	mg/L	22	20	91	0.02000	0.00055	0.00269	0.002	0.0039	1.5e-05	0.002 - 0.02	2016-06-08 to 2025-05-08
CCR-LF-6	Antimony, Total	mg/L	22	20	91	0.00200	0.00086	0.00191	0.002	0.0003	9.1e-08	0.002 - 0.002	2016-06-08 to 2025-05-08
Pooled Background	Antimony, Total	mg/L	46	42	91	0.00200	5.6e-05	0.00186	0.002	0.00046	2.1e-07	0.002 - 0.002	2016-06-08 to 2025-05-07
CCR-BK-1	Arsenic, Total	mg/L	23	10	43	0.00500	0.00021	0.00145	0.001	0.0015	2.2e-06	0.001 - 0.005	2016-08-11 to 2025-05-07
CCR-BK-2	Arsenic, Total	mg/L	24	15	62	0.00500	0.00031	0.00166	0.001	0.0015	2.2e-06	0.001 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-1	Arsenic, Total	mg/L	24	7	29	0.00500	0.00031	0.00142	0.00097	0.0015	2.1e-06	0.001 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-2	Arsenic, Total	mg/L	24	6	25	0.02500	0.001	0.00454	0.00165	0.0056	3.1e-05	0.01 - 0.025	2016-06-08 to 2025-05-08
CCR-LF-3	Arsenic, Total	mg/L	24	10	42	0.00880	0.00025	0.00168	0.00064	0.0023	5.2e-06	0.001 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-4	Arsenic, Total	mg/L	24	0	0	0.03500	0.0021	0.0192	0.0195	0.007	4.9e-05	NA	2016-06-07 to 2025-05-08
CCR-LF-5	Arsenic, Total	mg/L	24	12	50	0.01500	0.00032	0.00253	0.001	0.0036	1.3e-05	0.001 - 0.01	2016-06-08 to 2025-05-08
CCR-LF-6	Arsenic, Total	mg/L	24	13	54	0.00970	0.00029	0.00193	0.001	0.0024	5.8e-06	0.001 - 0.005	2016-06-08 to 2025-05-08
Pooled Background	Arsenic, Total	mg/L	47	25	53	0.00500	0.00021	0.00156	0.001	0.0015	2.2e-06	0.001 - 0.005	2016-06-08 to 2025-05-07
CCR-BK-1	Barium, Total	mg/L	24	0	0	0.12000	0.027	0.0487	0.038	0.022	0.0005	NA	2016-08-11 to 2025-05-07
CCR-BK-2	Barium, Total	mg/L	24	0	0	0.15000	0.032	0.0418	0.0355	0.024	0.00056	NA	2016-06-08 to 2025-05-07
CCR-LF-1	Barium, Total	mg/L	24	0	0	0.17000	0.023	0.0503	0.0415	0.031	0.00096	NA	2016-06-08 to 2025-05-07
CCR-LF-2	Barium, Total	mg/L	22	2	9	0.25000	0.01	0.0274	0.012	0.053	0.0028	0.1 - 0.25	2016-06-08 to 2025-05-08
CCR-LF-3	Barium, Total	mg/L	24	0	0	0.03000	0.016	0.0224	0.0225	0.0049	2.4e-05	NA	2016-06-08 to 2025-05-07
CCR-LF-4	Barium, Total	mg/L	22	2	9	0.10000	0.0078	0.0165	0.0115	0.019	0.00036	0.017 - 0.1	2016-06-07 to 2025-05-08
CCR-LF-5	Barium, Total	mg/L	24	0	0	0.03700	0.02	0.0259	0.0255	0.0039	1.6e-05	NA	2016-06-08 to 2025-05-08
CCR-LF-6	Barium, Total	mg/L	24	0	0	0.09800	0.015	0.0249	0.02	0.017	0.00028	NA	2016-06-08 to 2025-05-08
Pooled Background	Barium, Total	mg/L	48	0	0	0.15000	0.027	0.0452	0.037	0.023	0.00053	NA	2016-06-08 to 2025-05-07
CCR-BK-1	Beryllium, Total	mg/L	23	22	96	0.00100	0.00012	0.000962	0.001	0.00018	3.4e-08	0.001 - 0.001	2016-08-11 to 2025-05-07
CCR-BK-2	Beryllium, Total	mg/L	23	20	87	0.00100	0.00018	0.000909	0.001	0.00024	5.9e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-1	Beryllium, Total	mg/L	22	22	100	0.00100	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-2	Beryllium, Total	mg/L	22	18	82	0.02500	0.00013	0.00317	0.001	0.0058	3.4e-05	0.001 - 0.025	2016-06-08 to 2025-05-08
CCR-LF-3	Beryllium, Total	mg/L	22	22	100	0.00100	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-4	Beryllium, Total	mg/L	22	17	77	0.01000	0.00013	0.00205	0.001	0.0033	1.1e-05	0.001 - 0.01	2016-06-07 to 2025-05-08
CCR-LF-5	Beryllium, Total	mg/L	22	21	95	0.00100	0.00019	0.000963	0.001	0.00017	3e-08	0.001 - 0.001	2016-06-08 to 2025-05-08
CCR-LF-6	Beryllium, Total	mg/L	22	21	95	0.00100	0.00035	0.00097	0.001	0.00014	1.9e-08	0.001 - 0.001	2016-06-08 to 2025-05-08
Pooled Background	Beryllium, Total	mg/L	46	42	91	0.00100	0.00012	0.000935	0.001	0.00021	4.6e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-BK-1	Cadmium, Total	mg/L	24	23	96	0.00100	9e-05	0.000962	0.001	0.00019	3.5e-08	0.001 - 0.001	2016-08-11 to 2025-05-07
CCR-BK-2	Cadmium, Total	mg/L	24	23	96	0.00100	0.00024	0.000968	0.001	0.00016	2.4e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-1	Cadmium, Total	mg/L	24	23	96	0.00100	0.00018	0.000966	0.001	0.00017	2.8e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-2	Cadmium, Total	mg/L	24	1	4	0.02500	0.00075	0.00573	0.0046	0.0046	2.1e-05	0.025 - 0.025	2016-06-08 to 2025-05-08
CCR-LF-3	Cadmium, Total	mg/L	24	20	83	0.00100	9.5e-05	0.000856	0.001	0.00033	1.1e-07	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-4	Cadmium, Total	mg/L	24	23	96	0.01000	9.2e-05	0.00246	0.001	0.0034	1.2e-05	0.001 - 0.01	2016-06-07 to 2025-05-08
CCR-LF-5	Cadmium, Total	mg/L	24	4	17	0.01000	0.00015	0.000739	0.000235	0.002	4e-06	0.001 - 0.01	2016-06-08 to 2025-05-08
CCR-LF-6	Cadmium, Total	mg/L	24	7	29	0.00470	8.3e-05	0.000608	0.000215	0.00095	9.1e-07	0.001 - 0.001	2016-06-08 to 2025-05-08
Pooled Background	Cadmium, Total	mg/L	48	46	96	0.00100	9e-05	0.000965	0.001	0.00017	2.9e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-BK-1	Chromium, Total	mg/L	23	8	35	0.00760	0.00046	0.00248	0.002	0.0016	2.4e-06	0.002 - 0.005	2016-08-11 to 2025-05-07
CCR-BK-2	Chromium, Total	mg/L	23	17	74	0.00870	0.00076	0.00293	0.002	0.0018	3.4e-06	0.002 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-1	Chromium, Total	mg/L	24	13	54	0.00620	0.00089	0.00256	0.002	0.0016	2.5e-06	0.002 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-2	Chromium, Total	mg/L	23	17	74	0.05000	0.00067	0.00828	0.002	0.012	0.00014	0.002 - 0.05	2016-06-08 to 2025-05-08
CCR-LF-3	Chromium, Total	mg/L	23	9	39	0.00500	0.0012	0.00245	0.002	0.0011	1.3e-06	0.002 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-4	Chromium, Total	mg/L	23	19	83	0.02000	0.00044	0.0056	0.002	0.007	4.9e-05	0.002 - 0.02	2016-06-07 to 2025-05-08
CCR-LF-5	Chromium, Total	mg/L	23	15	65	0.02200	0.0006	0.00389	0.002	0.0056	3.1e-05	0.002 - 0.02	2016-06-08 to 2025-05-08
CCR-LF-6	Chromium, Total	mg/L	23	20	87	0.00700	0.00035	0.00263	0.002	0.0016	2.6e-06	0.002 - 0.005	2016-06-08 to 2025-05-08
Pooled Background	Chromium, Total	mg/L	46	25	54	0.00870	0.00046	0.0027	0.002	0.0017	2.9e-06	0.002 - 0.005	2016-06-08 to 2025-05-07
CCR-BK-1	Cobalt, Total	mg/L	23	6	26	0.00280	0.00012	0.000714	0.0005	0.00064	4.1e-07	0.0005 - 0.001	2016-08-11 to 2025-05-07
CCR-BK-2	Cobalt, Total	mg/L	24	14	58	0.00620	9.6e-05	0.000841	0.0005	0.0012	1.5e-06	0.0005 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-1	Cobalt, Total	mg/L	24	10	42	0.00100	4.3e-05	0.00048	0.0005	0.00029	8.6e-08	0.0005 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-2	Cobalt, Total	mg/L	24	0	0	0.01400	0.0057	0.00997	0.011	0.0022	5.1e-06	NA	2016-06-08 to 2025-05-08
CCR-LF-3	Cobalt, Total	mg/L	23	10	43	0.00100	9.1e-05	0.000491	0.0005	0.00024	5.9e-08	0.0005 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-4	Cobalt, Total	mg/L	24	0	0	0.00180	0.00015	0.00111	0.00115	0.00037	1.4e-07	NA	2016-06-07 to 2025-05-08
CCR-LF-5	Cobalt, Total	mg/L	24	9	38	0.00500	0.00011	0.000756	0.000425	0.0011	1.2e-06	0.0005 - 0.005	2016-06-08 to 2025-05-08
CCR-LF-6	Cobalt, Total	mg/L	23	4	17	0.01600	9.9e-05	0.00105	0.0003	0.0033	1.1e-05	0.0005 - 0.0005	2016-06-08 to 2025-05-08
Pooled Background	Cobalt, Total	mg/L	47	20	43	0.00620	9.6e-05	0.000779	0.0005	0.00097	9.3e-07	0.0005 - 0.001	2016-06-08 to 2025-05-07
CCR-BK-1	Fluoride	mg/L	23	2	9	0.38000	0.17	0.291	0.31	0.073	0.0054	0.23 - 0.23	2016-10-27 to 2025-05-07
CCR-BK-2	Fluoride	mg/L	22	3	14	0.34000	0.07	0.154	0.145	0.053	0.0028	0.1 - 0.12	2016-08-10 to 2025-05-07
CCR-LF-1	Fluoride	mg/L	23	4	17	0.32000	0.1	0.22	0.23	0.062	0.0038	0.1 - 0.14	2016-08-10 to 2025-05-07
CCR-LF-2	Fluoride	mg/L	23	17	74	25.00000	0.26	2.81	2.5	5	25	1 - 25	2016-08-10 to 2025-05-08
CCR-LF-3	Fluoride	mg/L	21	2	10	0.34000	0.1	0.218	0.21	0.069	0.0048	0.1 - 0.25	2016-08-09 to 2025-05-07
CCR-LF-4	Fluoride	mg/L	24	12	50	2.50000	0.26	0.934	1	0.72	0.52	1 - 2.5	2016-06-07 to 2025-05-08
CCR-LF-5	Fluoride	mg/L	22	4	18	1.00000	0.091	0.292	0.23	0.2	0.039	0.5 - 1	2016-08-09 to 2025-05-08
CCR-LF-6	Fluoride	mg/L	23	0	0	0.51000	0.12	0.337	0.33	0.09	0.0082	NA	2016-08-09 to 2025-05-08
Pooled Background	Fluoride	mg/L	45	5	11	0.38000	0.07	0.224	0.19	0.094	0.0088	0.1 - 0.23	2016-08-10 to 2025-05-07
CCR-BK-1	Lead, Total	mg/L	24	6	25	0.00110	7.9e-05	0.000606	0.000655	0.00037	1.4e-07	0.001 - 0.001	2016-08-11 to 2025-05-07
CCR-BK-2	Lead, Total	mg/L	24	16	67	0.01100	2.8e-05	0.0015	0.001	0.0021	4.5e-06	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-1	Lead, Total	mg/L	23	13	57	0.00190	3.3e-05	0.000841	0.001	0.00039	1.5e-07	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-2	Lead, Total	mg/L	23	10	43	0.02500	0.00019	0.00379	0.001	0.0061	3.7e-05	0.001 - 0.025	2016-06-08 to 2025-05-08
CCR-LF-3	Lead, Total	mg/L	23	21	91	0.00100	5.9e-05	0.000896	0.001	0.00028	8.1e-08	0.00047 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-4	Lead, Total	mg/L	23	12	52	0.07900	8.4e-05	0.00543	0.001	0.016	0.00027	0.001 - 0.01	2016-06-07 to 2025-05-08

Note:

Units: mg/L = milligrams per liter, pCi/L = picocuries per liter

Location	Constituent	Units	n	n, non-detects	percent of non-detects	max	min	mean	median	standard deviation	variance	reporting limit range	date range
CCR-LF-5	Lead, Total	mg/L	23	15	65	0.01000	0.00011	0.00117	0.001	0.002	3.8e-06	0.0004 - 0.01	2016-06-08 to 2025-05-08
CCR-LF-6	Lead, Total	mg/L	23	19	83	0.00320	4.5e-05	0.000948	0.001	0.00059	3.5e-07	0.00024 - 0.001	2016-06-08 to 2025-05-08
Pooled Background	Lead, Total	mg/L	48	22	46	0.01100	2.8e-05	0.00105	0.001	0.0016	2.5e-06	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-BK-1	Lithium, Total	mg/L	24	15	62	0.05000	0.0025	0.021	0.0082	0.021	0.00044	0.005 - 0.05	2016-08-11 to 2025-05-07
CCR-BK-2	Lithium, Total	mg/L	24	18	75	0.05000	0.0016	0.0237	0.008	0.023	0.00052	0.005 - 0.05	2016-06-08 to 2025-05-07
CCR-LF-1	Lithium, Total	mg/L	24	10	42	0.05000	0.0036	0.0188	0.0073	0.02	0.00042	0.0059 - 0.05	2016-06-08 to 2025-05-07
CCR-LF-2	Lithium, Total	mg/L	24	5	21	0.25000	0.005	0.0377	0.0205	0.051	0.0026	0.005 - 0.25	2016-06-08 to 2025-05-08
CCR-LF-3	Lithium, Total	mg/L	24	20	83	0.05000	0.0018	0.0212	0.008	0.021	0.00044	0.005 - 0.05	2016-06-08 to 2025-05-07
CCR-LF-4	Lithium, Total	mg/L	24	0	0	0.12000	0.037	0.0845	0.087	0.017	0.00028	NA	2016-06-07 to 2025-05-08
CCR-LF-5	Lithium, Total	mg/L	24	1	4	0.05000	0.016	0.0238	0.022	0.0066	4.4e-05	0.05 - 0.05	2016-06-08 to 2025-05-08
CCR-LF-6	Lithium, Total	mg/L	24	0	0	0.02300	0.013	0.0177	0.018	0.0032	1e-05	NA	2016-06-08 to 2025-05-08
Pooled Background	Lithium, Total	mg/L	48	33	69	0.05000	0.0016	0.0224	0.008	0.022	0.00047	0.005 - 0.05	2016-06-08 to 2025-05-07
CCR-BK-1	Mercury, Total	mg/L	23	23	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-08-11 to 2025-05-07
CCR-BK-2	Mercury, Total	mg/L	23	21	91	0.00020	0.0001	0.000196	0.0002	2.1e-05	4.3e-10	0.0002 - 0.0002	2016-06-08 to 2025-05-07
CCR-LF-1	Mercury, Total	mg/L	23	22	96	0.00020	0.00013	0.000197	0.0002	1.5e-05	2.1e-10	0.0002 - 0.0002	2016-06-08 to 2025-05-07
CCR-LF-2	Mercury, Total	mg/L	23	22	96	0.00020	0.00014	0.000197	0.0002	1.3e-05	1.6e-10	0.0002 - 0.0002	2016-06-08 to 2025-05-08
CCR-LF-3	Mercury, Total	mg/L	23	23	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-08 to 2025-05-07
CCR-LF-4	Mercury, Total	mg/L	23	23	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-07 to 2025-05-08
CCR-LF-5	Mercury, Total	mg/L	23	6	26	0.00041	5.3e-05	0.000169	0.00016	8.2e-05	6.7e-09	0.0002 - 0.0002	2016-06-08 to 2025-05-08
CCR-LF-6	Mercury, Total	mg/L	23	23	100	0.00020	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-08 to 2025-05-08
Pooled Background	Mercury, Total	mg/L	46	44	96	0.00020	0.0001	0.000198	0.0002	1.5e-05	2.2e-10	0.0002 - 0.0002	2016-06-08 to 2025-05-07
CCR-BK-1	Molybdenum, Total	mg/L	23	2	9	0.00500	0.00063	0.00184	0.0015	0.0012	1.5e-06	0.005 - 0.005	2016-08-11 to 2025-05-07
CCR-BK-2	Molybdenum, Total	mg/L	24	14	58	0.00500	0.00051	0.00338	0.005	0.002	4e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-1	Molybdenum, Total	mg/L	24	4	17	0.00500	0.00069	0.00179	0.0012	0.0015	2.2e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-2	Molybdenum, Total	mg/L	23	6	26	0.13000	0.0015	0.0185	0.0027	0.031	0.00099	0.05 - 0.13	2016-06-08 to 2025-05-08
CCR-LF-3	Molybdenum, Total	mg/L	23	4	17	0.00560	0.00074	0.0023	0.0014	0.0017	2.9e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-4	Molybdenum, Total	mg/L	24	1	4	0.02900	0.005	0.0223	0.023	0.0055	3e-05	0.005 - 0.005	2016-06-07 to 2025-05-08
CCR-LF-5	Molybdenum, Total	mg/L	24	9	38	0.05000	0.00058	0.00434	0.00115	0.0099	9.8e-05	0.005 - 0.05	2016-06-08 to 2025-05-08
CCR-LF-6	Molybdenum, Total	mg/L	23	4	17	0.00660	0.00061	0.00208	0.0013	0.0018	3.3e-06	0.005 - 0.005	2016-06-08 to 2025-05-08
Pooled Background	Molybdenum, Total	mg/L	47	16	34	0.00500	0.00051	0.00262	0.0017	0.0018	3.3e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-BK-1	Radium-226 & 228	pCi/L	21	10	48	2.46000	0.121	0.59	0.482	0.52	0.27	0.121 - 0.959	2016-08-11 to 2025-05-07
CCR-BK-2	Radium-226 & 228	pCi/L	23	18	78	3.13000	-0.0961	0.615	0.217	0.86	0.74	-0.0961 - 2.74	2016-06-08 to 2025-05-07
CCR-LF-1	Radium-226 & 228	pCi/L	20	2	10	8.07000	0.406	1.25	0.748	1.7	2.7	0.54 - 0.549	2016-06-08 to 2025-05-07
CCR-LF-2	Radium-226 & 228	pCi/L	23	0	0	4.01000	1.15	2.38	2.25	0.75	0.57	NA	2016-06-08 to 2025-05-08
CCR-LF-3	Radium-226 & 228	pCi/L	23	12	52	1.68000	0.188	0.592	0.52	0.36	0.13	0.188 - 1.68	2016-06-08 to 2025-05-07
CCR-LF-4	Radium-226 & 228	pCi/L	23	0	0	8.14000	2.1	4.82	4.71	1.4	1.8	NA	2016-06-07 to 2025-05-08
CCR-LF-5	Radium-226 & 228	pCi/L	24	18	75	2.78000	-0.0225	0.495	0.25	0.61	0.38	-0.0225 - 1.39	2016-06-08 to 2025-05-08
CCR-LF-6	Radium-226 & 228	pCi/L	24	18	75	6.53000	0.101	0.644	0.306	1.3	1.6	0.101 - 0.996	2016-06-08 to 2025-05-08
Pooled Background	Radium-226 & 228	pCi/L	44	28	64	3.13000	-0.0961	0.603	0.362	0.71	0.5	-0.0961 - 2.74	2016-06-08 to 2025-05-07
CCR-BK-1	Selenium, Total	mg/L	24	20	83	0.00500	0.00037	0.00434	0.005	0.0016	2.4e-06	0.005 - 0.005	2016-08-11 to 2025-05-07
CCR-BK-2	Selenium, Total	mg/L	24	21	88	0.00500	0.00047	0.00454	0.005	0.0013	1.7e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-1	Selenium, Total	mg/L	23	18	78	0.00500	0.00089	0.00415	0.005	0.0017	2.7e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-2	Selenium, Total	mg/L	23	6	26	0.13000	0.0018	0.0189	0.0034	0.031	0.00097	0.05 - 0.13	2016-06-08 to 2025-05-08
CCR-LF-3	Selenium, Total	mg/L	23	13	57	0.00500	0.0011	0.00363	0.005	0.0016	2.6e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-LF-4	Selenium, Total	mg/L	23	16	70	0.05000	0.00055	0.0117	0.005	0.018	0.00033	0.005 - 0.05	2016-06-07 to 2025-05-08
CCR-LF-5	Selenium, Total	mg/L	23	19	83	0.05000	0.00054	0.00628	0.005	0.0096	9.3e-05	0.005 - 0.05	2016-06-08 to 2025-05-08
CCR-LF-6	Selenium, Total	mg/L	23	14	61	0.00500	0.00074	0.00373	0.005	0.0017	2.7e-06	0.005 - 0.005	2016-06-08 to 2025-05-08
Pooled Background	Selenium, Total	mg/L	48	41	85	0.00500	0.00037	0.00444	0.005	0.0014	2e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-BK-1	Thallium, Total	mg/L	23	21	91	0.00100	3.8e-05	0.000926	0.001	0.00025	6.1e-08	0.001 - 0.001	2016-08-11 to 2025-05-07
CCR-BK-2	Thallium, Total	mg/L	23	19	83	0.00100	5.9e-05	0.000878	0.001	0.0003	8.8e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-1	Thallium, Total	mg/L	22	19	86	0.00100	5.5e-05	0.000923	0.001	0.00022	5e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-2	Thallium, Total	mg/L	22	7	32	0.02500	0.00018	0.0035	0.000765	0.006	3.6e-05	0.001 - 0.025	2016-06-08 to 2025-05-08
CCR-LF-3	Thallium, Total	mg/L	22	16	73	0.00100	1.5e-05	0.000774	0.001	0.00038	1.5e-07	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-LF-4	Thallium, Total	mg/L	22	18	82	0.01000	3.3e-05	0.00247	0.001	0.0036	1.3e-05	0.001 - 0.01	2016-06-07 to 2025-05-08
CCR-LF-5	Thallium, Total	mg/L	22	18	82	0.01000	2.5e-05	0.00128	0.001	0.002	3.9e-06	0.001 - 0.01	2016-06-08 to 2025-05-08
CCR-LF-6	Thallium, Total	mg/L	22	18	82	0.00100	7.3e-05	0.000851	0.001	0.00033	1.1e-07	0.001 - 0.001	2016-06-08 to 2025-05-08
Pooled Background	Thallium, Total	mg/L	46	40	87	0.00100	3.8e-05	0.000902	0.001	0.00027	7.3e-08	0.001 - 0.001	2016-06-08 to 2025-05-07

Note:

Units: mg/L = milligrams per liter, pCi/L = picocuries per liter

Table A-2. Results of Shapiro-Wilk Test for Normality

Location	Constituent	n	n, non-detects	Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit) W statistic	p-value	Data Normality (significance level = 0.01)	Shapiro-Wilk Test for Lognormality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit) W statistic	p-value	Data Lognormality (significance level = 0.01)	Distribution
CCR-BK-1	Antimony, Total	23	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-2	Antimony, Total	23	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Antimony, Total	22	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Antimony, Total	22	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-3	Antimony, Total	22	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Antimony, Total	22	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Antimony, Total	22	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Antimony, Total	22	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Antimony, Total	46	42	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Arsenic, Total	23	10	0.7555	8.065e-05	Not normal	0.9006	0.02601	Lognormal	Lognormal
CCR-BK-2	Arsenic, Total	24	15	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Arsenic, Total	24	7	0.8073	0.0003886	Not normal	0.9161	0.04788	Lognormal	Lognormal
CCR-LF-2	Arsenic, Total	24	6	0.6954	8.771e-06	Not normal	0.8761	0.00693	Not lognormal	Not normal
CCR-LF-3	Arsenic, Total	24	10	0.4825	3.832e-08	Not normal	0.7807	0.0001451	Not lognormal	Not normal
CCR-LF-4	Arsenic, Total	24	0	0.957	0.381	Normal	0.7301	2.584e-05	Not lognormal	Normal
CCR-LF-5	Arsenic, Total	24	12	0.4797	3.605e-08	Not normal	0.8177	0.0005824	Not lognormal	Not normal
CCR-LF-6	Arsenic, Total	24	13	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Arsenic, Total	47	25	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Barium, Total	24	0	0.7783	0.0001328	Not normal	0.8887	0.01249	Lognormal	Lognormal
CCR-BK-2	Barium, Total	24	0	0.385	5.109e-09	Not normal	0.568	2.767e-07	Not lognormal	Not normal
CCR-LF-1	Barium, Total	24	0	0.6836	6.165e-06	Not normal	0.9072	0.03071	Lognormal	Lognormal
CCR-LF-2	Barium, Total	22	2	0.3731	1.03e-08	Not normal	0.5497	3.99e-07	Not lognormal	Not normal
CCR-LF-3	Barium, Total	24	0	0.883	0.009536	Not normal	0.8809	0.008677	Not lognormal	Not normal
CCR-LF-4	Barium, Total	22	2	0.5088	1.59e-07	Not normal	0.7542	0.0001043	Not lognormal	Not normal
CCR-LF-5	Barium, Total	24	0	0.8974	0.01895	Normal	0.9376	0.1439	Lognormal	Normal
CCR-LF-6	Barium, Total	24	0	0.5016	5.845e-08	Not normal	0.7556	6.021e-05	Not lognormal	Not normal
Pooled Background	Barium, Total	48	0	0.6061	4.066e-10	Not normal	0.7781	4.308e-07	Not lognormal	Not normal
CCR-BK-1	Beryllium, Total	23	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-2	Beryllium, Total	23	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Beryllium, Total	22	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Beryllium, Total	22	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-3	Beryllium, Total	22	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Beryllium, Total	22	17	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Beryllium, Total	22	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Beryllium, Total	22	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Beryllium, Total	46	42	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Cadmium, Total	24	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-2	Cadmium, Total	24	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal

Location	Constituent	n	n, non-detects	Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			Shapiro-Wilk Test for Lognormality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			Distribution
				W statistic	p-value	Data Normality (significance level = 0.01)	W statistic	p-value	Data Lognormality (significance level = 0.01)	
CCR-LF-1	Cadmium, Total	24	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Cadmium, Total	24	1	0.9026	0.02449	Normal	0.8858	0.01088	Lognormal	Normal
CCR-LF-3	Cadmium, Total	24	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Cadmium, Total	24	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Cadmium, Total	24	4	0.2969	9.872e-10	Not normal	0.69	7.439e-06	Not lognormal	Not normal
CCR-LF-6	Cadmium, Total	24	7	0.3509	2.656e-09	Not normal	0.8505	0.00223	Not lognormal	Not normal
Pooled Background	Cadmium, Total	48	46	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Chromium, Total	23	8	0.7309	3.624e-05	Not normal	0.948	0.2657	Lognormal	Lognormal
CCR-BK-2	Chromium, Total	23	17	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Chromium, Total	24	13	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Chromium, Total	23	17	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-3	Chromium, Total	23	9	0.9113	0.04343	Normal	0.8835	0.01172	Lognormal	Normal
CCR-LF-4	Chromium, Total	23	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Chromium, Total	23	15	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Chromium, Total	23	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Chromium, Total	46	25	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Cobalt, Total	23	6	0.7196	2.544e-05	Not normal	0.9442	0.2212	Lognormal	Lognormal
CCR-BK-2	Cobalt, Total	24	14	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Cobalt, Total	24	10	0.8786	0.007799	Not normal	0.89	0.0133	Lognormal	Lognormal
CCR-LF-2	Cobalt, Total	24	0	0.9308	0.1014	Normal	0.9107	0.03658	Lognormal	Normal
CCR-LF-3	Cobalt, Total	23	10	0.9114	0.04379	Normal	0.9109	0.04264	Lognormal	Normal
CCR-LF-4	Cobalt, Total	24	0	0.9635	0.513	Normal	0.7416	3.759e-05	Not lognormal	Normal
CCR-LF-5	Cobalt, Total	24	9	0.5264	1.027e-07	Not normal	0.8033	0.0003337	Not lognormal	Not normal
CCR-LF-6	Cobalt, Total	23	4	0.2656	9.295e-10	Not normal	0.741	5.002e-05	Not lognormal	Not normal
Pooled Background	Cobalt, Total	47	20	0.5115	2.752e-11	Not normal	0.9249	0.004977	Not lognormal	Not normal
CCR-BK-1	Fluoride	23	2	0.8565	0.003571	Not normal	0.8113	0.0005836	Not lognormal	Not normal
CCR-BK-2	Fluoride	22	3	0.8834	0.01406	Normal	0.8916	0.02031	Lognormal	Normal
CCR-LF-1	Fluoride	23	4	0.8577	0.003771	Not normal	0.7209	2.644e-05	Not lognormal	Not normal
CCR-LF-2	Fluoride	23	17	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-3	Fluoride	21	2	0.9636	0.5904	Normal	0.8876	0.02023	Lognormal	Normal
CCR-LF-4	Fluoride	24	12	0.6573	2.884e-06	Not normal	0.8172	0.0005695	Not lognormal	Not normal
CCR-LF-5	Fluoride	22	4	0.916	0.06294	Normal	0.9754	0.8312	Lognormal	Normal
CCR-LF-6	Fluoride	23	0	0.9845	0.967	Normal	0.9014	0.02704	Lognormal	Normal
Pooled Background	Fluoride	45	5	0.9046	0.001326	Not normal	0.9143	0.002717	Not lognormal	Not normal
CCR-BK-1	Lead, Total	24	6	0.9337	0.1178	Normal	0.9353	0.128	Lognormal	Normal
CCR-BK-2	Lead, Total	24	16	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Lead, Total	23	13	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Lead, Total	23	10	0.6366	2.338e-06	Not normal	0.8746	0.007863	Not lognormal	Not normal
CCR-LF-3	Lead, Total	23	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Lead, Total	23	12	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Lead, Total	23	15	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Lead, Total	23	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Lead, Total	48	22	0.3357	2.025e-13	Not normal	0.8644	5.349e-05	Not lognormal	Not normal
CCR-BK-1	Lithium, Total	24	15	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal

Location	Constituent	n	n, non-detects	Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			Shapiro-Wilk Test for Lognormality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			Distribution
				W statistic	p-value	Data Normality (significance level = 0.01)	W statistic	p-value	Data Lognormality (significance level = 0.01)	
CCR-BK-2	Lithium, Total	24	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Lithium, Total	24	10	0.6972	9.259e-06	Not normal	0.8092	0.0004186	Not lognormal	Not normal
CCR-LF-2	Lithium, Total	24	5	0.586	4.327e-07	Not normal	0.8135	0.000493	Not lognormal	Not normal
CCR-LF-3	Lithium, Total	24	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Lithium, Total	24	0	0.9581	0.4016	Normal	0.8595	0.003302	Not lognormal	Normal
CCR-LF-5	Lithium, Total	24	1	0.9417	0.1782	Normal	0.9653	0.5527	Lognormal	Normal
CCR-LF-6	Lithium, Total	24	0	0.9234	0.06963	Normal	0.9244	0.07318	Lognormal	Normal
Pooled Background	Lithium, Total	48	33	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Mercury, Total	23	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-2	Mercury, Total	23	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Mercury, Total	23	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Mercury, Total	23	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-3	Mercury, Total	23	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Mercury, Total	23	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Mercury, Total	23	6	0.7593	9.16e-05	Not normal	0.932	0.1209	Lognormal	Lognormal
CCR-LF-6	Mercury, Total	23	23	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Mercury, Total	46	44	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Molybdenum, Total	23	2	0.9236	0.07965	Normal	0.9488	0.2757	Lognormal	Normal
CCR-BK-2	Molybdenum, Total	24	14	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Molybdenum, Total	24	4	0.8492	0.00211	Not normal	0.9293	0.09427	Lognormal	Lognormal
CCR-LF-2	Molybdenum, Total	23	6	0.5875	6.597e-07	Not normal	0.7454	5.769e-05	Not lognormal	Not normal
CCR-LF-3	Molybdenum, Total	23	4	0.8065	0.0004877	Not normal	0.9327	0.1254	Lognormal	Lognormal
CCR-LF-4	Molybdenum, Total	24	1	0.8379	0.001315	Not normal	0.5498	1.781e-07	Not lognormal	Not normal
CCR-LF-5	Molybdenum, Total	24	9	0.339	2.127e-09	Not normal	0.7903	0.0002055	Not lognormal	Not normal
CCR-LF-6	Molybdenum, Total	23	4	0.6707	5.969e-06	Not normal	0.9339	0.133	Lognormal	Lognormal
Pooled Background	Molybdenum, Total	47	16	0.8567	3.901e-05	Not normal	0.8527	3.039e-05	Not lognormal	Not normal
CCR-BK-1	Radium-226 & 228	21	10	0.6719	1.256e-05	Not normal	0.9542	0.4073	Lognormal	Lognormal
CCR-BK-2	Radium-226 & 228	23	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Radium-226 & 228	20	2	0.4627	1.488e-07	Not normal	0.9037	0.04845	Lognormal	Lognormal
CCR-LF-2	Radium-226 & 228	23	0	0.9469	0.2525	Normal	0.9798	0.9025	Lognormal	Normal
CCR-LF-3	Radium-226 & 228	23	12	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Radium-226 & 228	23	0	0.9558	0.3848	Normal	0.9132	0.04775	Lognormal	Normal
CCR-LF-5	Radium-226 & 228	24	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Radium-226 & 228	24	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Radium-226 & 228	44	28	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Selenium, Total	24	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-2	Selenium, Total	24	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Selenium, Total	23	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Selenium, Total	23	6	0.6147	1.314e-06	Not normal	0.8178	0.0007487	Not lognormal	Not normal
CCR-LF-3	Selenium, Total	23	13	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Selenium, Total	23	16	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal

Location	Constituent	n	n, non-detects	Shapiro-Wilk Test for Normality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			Shapiro-Wilk Test for Lognormality (R programming, package = stats, version 4.3.3, function = shapiro.test, non-detects substituted by 0.5*reporting limit)			Distribution
				W statistic	p-value	Data Normality (significance level = 0.01)	W statistic	p-value	Data Lognormality (significance level = 0.01)	
CCR-LF-5	Selenium, Total	23	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Selenium, Total	23	14	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Selenium, Total	48	41	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-1	Thallium, Total	23	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-BK-2	Thallium, Total	23	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-1	Thallium, Total	22	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-2	Thallium, Total	22	7	0.5904	1.049e-06	Not normal	0.8607	0.005287	Not lognormal	Not normal
CCR-LF-3	Thallium, Total	22	16	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-4	Thallium, Total	22	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-5	Thallium, Total	22	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-LF-6	Thallium, Total	22	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
Pooled Background	Thallium, Total	46	40	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal

Table A-3. Results of Rosner/Dixon Test for Outliers

				Rosner or Dixon Test for Outliers (R programming, package = outliers, version 0.15, function = dixon.test or rosnerTest, non-detects substituted by 0.5*reporting limit)						
Location	**Constituent**	**n**	**n, non-detects**	**Outlier Test**	**statistic**	**p-value (Dixon)**	**critical value (Rosner)**	**n of statistical outliers (significance level = 0.05, Rosner)**	**statistical outlier (significance level = 0.05, Dixon)**	**outlier removed**
CCR-BK-1	Antimony, Total	23	21	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Antimony, Total	23	21	Dixon	1	0	NA	NA	Yes	No
CCR-LF-1	Antimony, Total	22	18	Dixon	0.02381	0	NA	NA	Yes	No
CCR-LF-2	Antimony, Total	22	21	Dixon	0.625	0	NA	NA	Yes	No
CCR-LF-3	Antimony, Total	22	20	Dixon	1	0	NA	NA	Yes	No
CCR-LF-4	Antimony, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-5	Antimony, Total	22	20	Dixon	1	0	NA	NA	Yes	No
CCR-LF-6	Antimony, Total	22	20	Dixon	1	0	NA	NA	Yes	No
Pooled Background	Antimony, Total	46	42	Rosner	4.912, 4.194, 5.203	NA	3.094, 3.085, 3.076	3	NA	No
CCR-BK-1	Arsenic, Total	23	10	Dixon	0	0	NA	NA	Yes	No
CCR-BK-2	Arsenic, Total	24	15	Dixon	0.2589	0.6477	NA	NA	No	NA
CCR-LF-1	Arsenic, Total	24	7	Dixon	0	0	NA	NA	Yes	No
CCR-LF-2	Arsenic, Total	24	6	Dixon	0.6696	0	NA	NA	Yes	No
CCR-LF-3	Arsenic, Total	24	10	Dixon	0.742	0	NA	NA	Yes	No
CCR-LF-4	Arsenic, Total	24	0	Dixon	0.3724	0.1857	NA	NA	No	NA
CCR-LF-5	Arsenic, Total	24	12	Dixon	0.8345	0	NA	NA	Yes	No
CCR-LF-6	Arsenic, Total	24	13	Dixon	0.766	0	NA	NA	Yes	No
Pooled Background	Arsenic, Total	47	25	Rosner	2.739, 2.189, 2.218	NA	3.103, 3.094, 3.085	0	NA	NA
CCR-BK-1	Barium, Total	24	0	Dixon	0.427	0.07879	NA	NA	No	NA
CCR-BK-2	Barium, Total	24	0	Dixon	0.8644	0	NA	NA	Yes	No
CCR-LF-1	Barium, Total	24	0	Dixon	0.5816	0	NA	NA	Yes	No
CCR-LF-2	Barium, Total	22	2	Dixon	0.9123	0	NA	NA	Yes	No
CCR-LF-3	Barium, Total	24	0	Dixon	0.07143	0.1885	NA	NA	No	NA
CCR-LF-4	Barium, Total	22	2	Dixon	0.8232	0	NA	NA	Yes	No
CCR-LF-5	Barium, Total	24	0	Dixon	0.375	0.179	NA	NA	No	NA
CCR-LF-6	Barium, Total	24	0	Dixon	0.8293	0	NA	NA	Yes	No
Pooled Background	Barium, Total	48	0	Rosner	4.559, 4.476, 3.525	NA	3.112, 3.103, 3.094	3	NA	No
CCR-BK-1	Beryllium, Total	23	22	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Beryllium, Total	23	20	Dixon	0.6875	0	NA	NA	Yes	No
CCR-LF-1	Beryllium, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-2	Beryllium, Total	22	18	Dixon	0.6088	0	NA	NA	Yes	No
CCR-LF-3	Beryllium, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-4	Beryllium, Total	22	17	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Beryllium, Total	22	21	Dixon	1	0	NA	NA	Yes	No
CCR-LF-6	Beryllium, Total	22	21	Dixon	1	0	NA	NA	Yes	No
Pooled Background	Beryllium, Total	46	42	Rosner	4.645, 5.5, 5.65	NA	3.094, 3.085, 3.076	3	NA	No
CCR-BK-1	Cadmium, Total	24	23	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Cadmium, Total	24	23	Dixon	1	0	NA	NA	Yes	No
CCR-LF-1	Cadmium, Total	24	23	Dixon	1	0	NA	NA	Yes	No
CCR-LF-2	Cadmium, Total	24	1	Dixon	0.4184	0.09139	NA	NA	No	NA
CCR-LF-3	Cadmium, Total	24	20	Dixon	0.03704	0.0631	NA	NA	No	NA
CCR-LF-4	Cadmium, Total	24	23	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Cadmium, Total	24	4	Dixon	0.9298	0	NA	NA	Yes	No
CCR-LF-6	Cadmium, Total	24	7	Dixon	0.915	0	NA	NA	Yes	No
Pooled Background	Cadmium, Total	48	46	Rosner	5.707, 6.71, NA	NA	3.112, 3.103, 3.094	2	NA	NA
CCR-BK-1	Chromium, Total	23	8	Dixon	0.6835	0	NA	NA	Yes	No
CCR-BK-2	Chromium, Total	23	17	Dixon	0.5195	0.01428	NA	NA	Yes	No
CCR-LF-1	Chromium, Total	24	13	Dixon	0.7075	0	NA	NA	Yes	No
CCR-LF-2	Chromium, Total	23	17	Dixon	0.6209	0	NA	NA	Yes	No
CCR-LF-3	Chromium, Total	23	9	Dixon	0	0	NA	NA	Yes	No
CCR-LF-4	Chromium, Total	23	19	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Chromium, Total	23	15	Dixon	0.9121	0	NA	NA	Yes	No
CCR-LF-6	Chromium, Total	23	20	Dixon	0.75	0	NA	NA	Yes	No
Pooled Background	Chromium, Total	46	25	Rosner	3.956, 4.182, 2.782	NA	3.094, 3.085, 3.076	2	NA	NA
CCR-BK-1	Cobalt, Total	23	6	Dixon	0.6415	0	NA	NA	Yes	No
CCR-BK-2	Cobalt, Total	24	14	Dixon	0.7705	0	NA	NA	Yes	No
CCR-LF-1	Cobalt, Total	24	10	Dixon	0.3684	0.1963	NA	NA	No	NA
CCR-LF-2	Cobalt, Total	24	0	Dixon	0.2055	0.97	NA	NA	No	NA
CCR-LF-3	Cobalt, Total	23	10	Dixon	0.4565	0.05454	NA	NA	No	NA
CCR-LF-4	Cobalt, Total	24	0	Dixon	0.4222	0.08556	NA	NA	No	NA
CCR-LF-5	Cobalt, Total	24	9	Dixon	0.641	0	NA	NA	Yes	No
CCR-LF-6	Cobalt, Total	23	4	Dixon	0.9534	0	NA	NA	Yes	No
Pooled Background	Cobalt, Total	47	20	Rosner	5.58, 4.065, 3.854	NA	3.103, 3.094, 3.085	3	NA	No
CCR-BK-1	Fluoride	23	2	Dixon	0.2157	0.9442	NA	NA	No	NA
CCR-BK-2	Fluoride	22	3	Dixon	0.5	0.02699	NA	NA	Yes	No
CCR-LF-1	Fluoride	23	4	Dixon	0.04348	0.07876	NA	NA	No	NA

Rosner or Dixon Test for Outliers (R programming, package = outliers, version 0.15, function = dixon.test or rosnerTest, non-detects substituted by 0.5*reporting limit)

Location	Constituent	n	n, non-detects	Outlier Test	statistic	p-value (Dixon)	critical value (Rosner)	n of statistical outliers (significance level = 0.05, Rosner)	statistical outlier (significance level = 0.05, Dixon)	outlier removed
CCR-LF-2	Fluoride	23	17	Dixon	0.8244	0	NA	NA	Yes	No
CCR-LF-3	Fluoride	21	2	Dixon	0.2586	0.7602	NA	NA	No	NA
CCR-LF-4	Fluoride	24	12	Dixon	0.4114	0.1027	NA	NA	No	NA
CCR-LF-5	Fluoride	22	4	Dixon	0.4706	0.04942	NA	NA	Yes	No
CCR-LF-6	Fluoride	23	0	Dixon	0.4062	0.1261	NA	NA	No	NA
Pooled Background	Fluoride	45	5	Rosner	1.622, 1.617, 1.637	NA	3.085, 3.076, 3.067	0	NA	NA
CCR-BK-1	Lead, Total	24	6	Dixon	0.1915	0.9348	NA	NA	No	NA
CCR-BK-2	Lead, Total	24	16	Dixon	0.819	0	NA	NA	Yes	No
CCR-LF-1	Lead, Total	23	13	Dixon	0.7219	0	NA	NA	Yes	No
CCR-LF-2	Lead, Total	23	10	Dixon	0.6122	0	NA	NA	Yes	No
CCR-LF-3	Lead, Total	23	21	Dixon	0.3991	0.1405	NA	NA	No	NA
CCR-LF-4	Lead, Total	23	12	Dixon	0.939	0	NA	NA	Yes	No
CCR-LF-5	Lead, Total	23	15	Dixon	0.8075	0	NA	NA	Yes	No
CCR-LF-6	Lead, Total	23	19	Dixon	0.8852	0	NA	NA	Yes	No
Pooled Background	Lead, Total	48	22	Rosner	6.368, 3.939, 4.041	NA	3.112, 3.103, 3.094	3	NA	No
CCR-BK-1	Lithium, Total	24	15	Dixon	0	0	NA	NA	Yes	No
CCR-BK-2	Lithium, Total	24	18	Dixon	0	0	NA	NA	Yes	No
CCR-LF-1	Lithium, Total	24	10	Dixon	0	0	NA	NA	Yes	No
CCR-LF-2	Lithium, Total	24	5	Dixon	0.7706	0	NA	NA	Yes	No
CCR-LF-3	Lithium, Total	24	20	Dixon	0	0	NA	NA	Yes	No
CCR-LF-4	Lithium, Total	24	0	Dixon	0.4921	0.02238	NA	NA	Yes	No
CCR-LF-5	Lithium, Total	24	1	Dixon	0.3333	0.3081	NA	NA	No	NA
CCR-LF-6	Lithium, Total	24	0	Dixon	0	0	NA	NA	Yes	No
Pooled Background	Lithium, Total	48	33	Rosner	1.242, 1.277, 1.314	NA	3.112, 3.103, 3.094	0	NA	NA
CCR-BK-1	Mercury, Total	23	23	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-BK-2	Mercury, Total	23	21	Dixon	1	0	NA	NA	Yes	No
CCR-LF-1	Mercury, Total	23	22	Dixon	1	0	NA	NA	Yes	No
CCR-LF-2	Mercury, Total	23	22	Dixon	1	0	NA	NA	Yes	No
CCR-LF-3	Mercury, Total	23	23	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-4	Mercury, Total	23	23	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-LF-5	Mercury, Total	23	6	Dixon	0.4545	0.05663	NA	NA	No	NA
CCR-LF-6	Mercury, Total	23	23	Dixon	All results are non-detect	NA	NA	NA	NA	NA
Pooled Background	Mercury, Total	46	44	Rosner	6.635, NA, NA	NA	3.094, 3.085, 3.076	1	NA	NA
CCR-BK-1	Molybdenum, Total	23	2	Dixon	0.3396	0.3081	NA	NA	No	NA
CCR-BK-2	Molybdenum, Total	24	14	Dixon	0.0603	0.1433	NA	NA	No	NA
CCR-LF-1	Molybdenum, Total	24	4	Dixon	0	0	NA	NA	Yes	No
CCR-LF-2	Molybdenum, Total	23	6	Dixon	0.6369	0	NA	NA	Yes	No
CCR-LF-3	Molybdenum, Total	23	4	Dixon	0.4936	0.02557	NA	NA	Yes	No
CCR-LF-4	Molybdenum, Total	24	1	Dixon	0.4902	0.02333	NA	NA	Yes	No
CCR-LF-5	Molybdenum, Total	24	9	Dixon	0.9236	0	NA	NA	Yes	No
CCR-LF-6	Molybdenum, Total	23	4	Dixon	0.6914	0	NA	NA	Yes	No
Pooled Background	Molybdenum, Total	47	16	Rosner	2.064, 1.618, 1.538	NA	3.103, 3.094, 3.085	0	NA	NA
CCR-BK-1	Radium-226 & 228	21	10	Dixon	0.7727	0	NA	NA	Yes	No
CCR-BK-2	Radium-226 & 228	23	18	Dixon	0.569	0	NA	NA	Yes	No
CCR-LF-1	Radium-226 & 228	20	2	Dixon	0.8612	0	NA	NA	Yes	No
CCR-LF-2	Radium-226 & 228	23	0	Dixon	0.1984	0.943	NA	NA	No	NA
CCR-LF-3	Radium-226 & 228	23	12	Dixon	0.4268	0.09118	NA	NA	No	NA
CCR-LF-4	Radium-226 & 228	23	0	Dixon	0.3101	0.4252	NA	NA	No	NA
CCR-LF-5	Radium-226 & 228	24	18	Dixon	0.7564	0	NA	NA	Yes	No
CCR-LF-6	Radium-226 & 228	24	18	Dixon	0.9151	0	NA	NA	Yes	No
Pooled Background	Radium-226 & 228	44	28	Rosner	4.004, 3.874, 3.623	NA	3.076, 3.067, 3.057	3	NA	No
CCR-BK-1	Selenium, Total	24	20	Dixon	0.1408	0.5923	NA	NA	No	NA
CCR-BK-2	Selenium, Total	24	21	Dixon	0.9507	0	NA	NA	Yes	No
CCR-LF-1	Selenium, Total	23	18	Dixon	0.1304	0.5034	NA	NA	No	NA
CCR-LF-2	Selenium, Total	23	6	Dixon	0.6349	0	NA	NA	Yes	No
CCR-LF-3	Selenium, Total	23	13	Dixon	0.3571	0.2492	NA	NA	No	NA
CCR-LF-4	Selenium, Total	23	16	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Selenium, Total	23	19	Dixon	0.9494	0	NA	NA	Yes	No
CCR-LF-6	Selenium, Total	23	14	Dixon	0.375	0.1973	NA	NA	No	NA
Pooled Background	Selenium, Total	48	41	Rosner	3.266, 3.574, 4.178	NA	3.112, 3.103, 3.094	3	NA	No
CCR-BK-1	Thallium, Total	23	21	Dixon	1	0	NA	NA	Yes	No
CCR-BK-2	Thallium, Total	23	19	Dixon	0.2971	0.4847	NA	NA	No	NA
CCR-LF-1	Thallium, Total	22	19	Dixon	1	0	NA	NA	Yes	No
CCR-LF-2	Thallium, Total	22	7	Dixon	0.6183	0	NA	NA	Yes	No
CCR-LF-3	Thallium, Total	22	16	Dixon	0.1753	0.7572	NA	NA	No	NA
CCR-LF-4	Thallium, Total	22	18	Dixon	0	0	NA	NA	Yes	No
CCR-LF-5	Thallium, Total	22	18	Dixon	0.9574	0	NA	NA	Yes	No
CCR-LF-6	Thallium, Total	22	18	Dixon	0.2272	0.9101	NA	NA	No	NA
Pooled Background	Thallium, Total	46	40	Rosner	3.498, 3.962, 3.603	NA	3.094, 3.085, 3.076	3	NA	No

Table A-4. Results of Mann Kendall and Thiel Sen Trend Tests

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-BK-1	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.239	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	2	0.137	NA	NA	NA	NA	NA	NA	NA	8	1	0.141	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.174	NA	NA	NA	NA	NA	NA	NA	8	3	0.249	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Antimony, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	1.56	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.0774	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Antimony, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	1.35	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	2	1.41	NA	NA	NA	NA	NA	NA	NA	8	1	0.145	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	2	0.0376	NA	NA	NA	NA	NA	NA	NA	8	1	0.0504	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	46	4	0.192	NA	NA	NA	NA	NA	NA	NA	8	1	0.141	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Arsenic, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	23	13	0.811	0.232	0.146	85.4	55	NA	NA	NA	8	2	0.765	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	9	0.923	NA	NA	NA	NA	NA	NA	NA	8	2	0.663	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Arsenic, Total	No Trend	No Trend	24	17	0.722	0.196	0.195	80.5	53	NA	NA	NA	8	5	0.583	2021-11-19 to 2025-05-07	0.265	0.445	55.5	7	NA	NA	NA
CCR-LF-2	Arsenic, Total	Stable	No Trend	24	18	0.876	-0.241	0.115	88.5	-64	NA	NA	NA	8	8	0.279	2021-11-19 to 2025-05-08	0.0741	0.9	10	2	NA	NA	NA
CCR-LF-3	Arsenic, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	24	14	1.6	0.227	0.139	86.1	60	NA	NA	NA	8	3	0.785	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Arsenic, Total	No Trend	Stable	24	24	0.331	0.124	0.412	58.8	34	NA	NA	NA	8	8	0.245	2021-11-19 to 2025-05-08	-0.286	0.386	61.4	-8	NA	NA	NA
CCR-LF-5	Arsenic, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	24	12	1.74	0.222	0.15	85	58	NA	NA	NA	8	2	0.57	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	11	1.57	NA	NA	NA	NA	NA	NA	NA	8	2	0.712	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	47	22	0.871	NA	NA	NA	NA	NA	NA	NA	8	3	0.596	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Barium, Total	Increasing	No Trend	24	24	0.457	0.343	0.022	97.8	93	7.2e-06	0.036	0.0026	8	8	0.41	2021-11-18 to 2025-05-07	0.473	0.135	86.5	13	NA	NA	NA
CCR-BK-2	Barium, Total	Stable	Stable	24	24	0.566	-0.221	0.147	85.3	-59	NA	NA	NA	8	8	0.156	2021-11-18 to 2025-05-07	-0.463	0.158	84.2	-12	NA	NA	NA
CCR-LF-1	Barium, Total	Stable	Stable	24	24	0.615	-0.106	0.487	51.3	-29	NA	NA	NA	8	8	0.85	2021-11-19 to 2025-05-07	-0.0364	1	0	-1	NA	NA	NA
CCR-LF-2	Barium, Total	No Trend	Stable	22	20	1.28	-0.219	0.185	81.5	-47	NA	NA	NA	8	8	0.141	2021-11-19 to 2025-05-08	-0.309	0.369	63.1	-8	NA	NA	NA
CCR-LF-3	Barium, Total	Decreasing	Increasing	24	24	0.173	-0.488	0.00103	99.9	-133	-2e-06	0.023	-0.00073	8	8	0.0686	2021-11-18 to 2025-05-07	0.667	0.0327	96.7	18	1.4e-06	0.018	0.0005
CCR-LF-4	Barium, Total	Stable	Stable	22	20	0.625	-0.136	0.416	58.4	-29	NA	NA	NA	8	8	0.342	2021-11-19 to 2025-05-08	0	1	0	0	NA	NA	NA

Note:

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		Mann Kendall Trends		Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
				Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-LF-5	Barium, Total	Decreasing	Stable	24	24	0.152	-0.361	0.0182	98.2	-95	-1.3e-06	0.027	-0.00046	8	8	0.213	2021-11-19 to 2025-05-08	-0.327	0.319	68.1	-9	NA	NA	NA
CCR-LF-6	Barium, Total	Increasing	Stable	24	24	0.674	0.5	0.000902	99.9	134	2.7e-06	0.017	0.00098	8	8	0.798	2021-11-19 to 2025-05-08	0	1	0	0	NA	NA	NA
Pooled Background	Barium, Total	No Trend	No Trend	48	48	0.508	0.0635	0.538	46.2	70	NA	NA	NA	8	8	0.562	NA	0.0741	0.9	10	2	NA	NA	NA
CCR-BK-1	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	23	1	0.164	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	3	0.162	NA	NA	NA	NA	NA	NA	NA	8	1	0.133	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Beryllium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	4	1.82	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	Beryllium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	5	1.54	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	1	0.136	NA	NA	NA	NA	NA	NA	NA	8	1	0.238	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	22	1	0.0648	NA	NA	NA	NA	NA	NA	NA	8	1	0.11	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Beryllium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	46	4	0.161	NA	NA	NA	NA	NA	NA	NA	8	1	0.133	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.173	NA	NA	NA	NA	NA	NA	NA	8	1	0.323	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.108	NA	NA	NA	NA	NA	NA	NA	8	1	0.197	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.134	NA	NA	NA	NA	NA	NA	NA	8	1	0.246	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Cadmium, Total	No Trend	Stable	24	23	0.402	0.149	0.321	67.9	41	NA	NA	NA	8	8	0.245	2021-11-19 to 2025-05-08	-0.5	0.108	89.2	-14	NA	NA	NA
CCR-LF-3	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	24	4	0.322	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	24	1	1.4	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Cadmium, Total	Decreasing	No Trend	24	20	2.09	-0.339	0.0224	97.8	-93	-1.1e-07	0.00075	-3.8e-05	8	7	18.5	2021-11-19 to 2025-05-08	-0.214	0.536	46.4	-6	NA	NA	NA
CCR-LF-6	Cadmium, Total	No Trend	Probably Decreasing	24	17	1.98	0.205	0.182	81.8	54	NA	NA	NA	8	5	1.73	2021-11-19 to 2025-05-08	-0.567	0.0746	92.5	-15	NA	NA	NA
Pooled Background	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	48	2	0.143	NA	NA	NA	NA	NA	NA	NA	8	2	0.385	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Chromium, Total	No Trend	Increasing	23	15	0.736	0.128	0.423	57.7	31	NA	NA	NA	8	4	0.39	2021-11-18 to 2025-05-07	0.667	0.0327	96.7	18	1.5e-06	0.0008	0.00055
CCR-BK-2	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	6	0.963	NA	NA	NA	NA	NA	NA	NA	8	2	0.621	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	11	0.7	NA	NA	NA	NA	NA	NA	NA	8	1	0.499	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	6	1.36	NA	NA	NA	NA	NA	NA	NA	8	0	0.458	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA

Note:

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				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-LF-3	Chromium, Total	Stable	Not Evaluated - Majority of data (>50%) non-detect	23	14	0.29	-0.116	0.471	52.9	-28	NA	NA	NA	8	3	0.388	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	1.2	NA	NA	NA	NA	NA	NA	NA	8	1	0.989	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	8	1.8	NA	NA	NA	NA	NA	NA	NA	8	1	0.404	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	3	0.906	NA	NA	NA	NA	NA	NA	NA	8	1	0.786	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	46	21	0.848	NA	NA	NA	NA	NA	NA	NA	8	3	0.331	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Cobalt, Total	No Trend	Increasing	23	17	1.05	-0.218	0.159	84.1	-54	NA	NA	NA	8	4	0.498	2021-11-18 to 2025-05-07	0.718	0.0219	97.8	19	1.3e-07	0.00021	4.7e-05
CCR-BK-2	Cobalt, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	10	1.87	NA	NA	NA	NA	NA	NA	NA	8	2	0.799	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Cobalt, Total	Increasing	Not Evaluated - Majority of data (>50%) non-detect	24	14	0.633	0.364	0.0168	98.3	96	8.1e-08	0.00022	3e-05	8	2	0.569	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Cobalt, Total	Increasing	Stable	24	24	0.226	0.441	0.00414	99.6	114	1.4e-06	0.0076	0.00051	8	8	0.0827	2021-11-19 to 2025-05-08	-0.178	0.667	33.3	-4	NA	NA	NA
CCR-LF-3	Cobalt, Total	Probably Decreasing	Not Evaluated - Majority of data (>50%) non-detect	23	13	0.414	-0.283	0.0718	92.8	-68	NA	NA	NA	8	2	0.464	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Cobalt, Total	Stable	No Trend	24	24	0.331	-0.0148	0.94	6	-4	NA	NA	NA	8	8	0.25	2021-11-19 to 2025-05-08	0.286	0.386	61.4	8	NA	NA	NA
CCR-LF-5	Cobalt, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	24	15	1.41	-0.129	0.406	59.4	-34	NA	NA	NA	8	3	0.89	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Cobalt, Total	No Trend	No Trend	23	19	3.27	0.241	0.118	88.2	60	NA	NA	NA	8	7	2.35	2021-11-19 to 2025-05-08	-0.5	0.108	89.2	-14	NA	NA	NA
Pooled Background	Cobalt, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	47	27	1.53	-0.0128	0.91	9	-13	NA	NA	NA	8	3	0.359	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Fluoride	Decreasing	Stable	23	21	0.313	-0.349	0.024	97.6	-86	-4.8e-05	0.34	-0.017	8	7	0.398	2021-11-18 to 2025-05-07	-0.416	0.203	79.7	-11	NA	NA	NA
CCR-BK-2	Fluoride	Stable	Stable	22	19	0.426	-0.098	0.551	44.9	-22	NA	NA	NA	8	6	0.606	2021-11-18 to 2025-05-07	-0.286	0.386	61.4	-8	NA	NA	NA
CCR-LF-1	Fluoride	Stable	Stable	23	19	0.384	-0.226	0.144	85.6	-56	NA	NA	NA	8	6	0.486	2021-11-19 to 2025-05-07	-0.357	0.266	73.4	-10	NA	NA	NA
CCR-LF-2	Fluoride	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	6	1.66	NA	NA	NA	NA	NA	NA	NA	8	6	1.37	2021-11-19 to 2025-05-08	-0.5	0.108	89.2	-14	NA	NA	NA
CCR-LF-3	Fluoride	Stable	Stable	21	19	0.363	-0.0242	0.904	9.6	-5	NA	NA	NA	8	8	0.268	2021-11-18 to 2025-05-07	-0.109	0.803	19.7	-3	NA	NA	NA
CCR-LF-4	Fluoride	Probably Decreasing	No Trend	24	12	0.681	-0.29	0.0619	93.8	-74	NA	NA	NA	8	7	0.954	2021-11-19 to 2025-05-08	0.286	0.386	61.4	8	NA	NA	NA
CCR-LF-5	Fluoride	No Trend	Stable	22	18	0.379	0.0976	0.552	44.8	22	NA	NA	NA	8	8	0.254	2021-11-19 to 2025-05-08	-0.222	0.53	47	-6	NA	NA	NA
CCR-LF-6	Fluoride	No Trend	Probably Increasing	23	23	0.269	0.076	0.634	36.6	19	NA	NA	NA	8	8	0.166	2021-11-19 to 2025-05-08	0.546	0.0809	91.9	15	NA	NA	NA
Pooled Background	Fluoride	Probably Decreasing	Stable	45	40	0.473	-0.174	0.0977	90.2	-170	NA	NA	NA	8	8	0.256	NA	-0.34	0.308	69.2	-9	NA	NA	NA
CCR-BK-1	Lead, Total	Stable	Probably Increasing	24	18	0.603	-0.0224	0.9	10	-6	NA	NA	NA	8	4	0.356	2021-11-18 to 2025-05-07	0.564	0.0842	91.6	14	NA	NA	NA
CCR-BK-2	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	8	1.9	NA	NA	NA	NA	NA	NA	NA	8	2	0.898	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	10	0.627	NA	NA	NA	NA	NA	NA	NA	8	2	0.733	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Lead, Total	No Trend	Stable	23	13	1.42	0.0327	0.852	14.8	8	NA	NA	NA	8	5	0.483	2021-11-19 to 2025-05-08	-0.113	0.799	20.1	-3	NA	NA	NA

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				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-LF-3	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.296	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	11	3.56	NA	NA	NA	NA	NA	NA	NA	8	4	1.17	2021-11-19 to 2025-05-08	0.242	0.507	49.3	6	NA	NA	NA
CCR-LF-5	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	8	1.48	NA	NA	NA	NA	NA	NA	NA	8	1	0.369	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	1.08	NA	NA	NA	NA	NA	NA	NA	8	1	1.14	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Lead, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	48	26	1.94	-0.0448	0.68	32	-45	NA	NA	NA	8	3	0.148	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	Probably Increasing	24	9	0.838	NA	NA	NA	NA	NA	NA	NA	8	6	0.684	2021-11-18 to 2025-05-07	0.546	0.0809	91.9	15	NA	NA	NA
CCR-BK-2	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	No Trend	24	6	0.906	NA	NA	NA	NA	NA	NA	NA	8	5	0.352	2021-11-18 to 2025-05-07	0.0378	1	0	1	NA	NA	NA
CCR-LF-1	Lithium, Total	Decreasing	No Trend	24	14	0.837	-0.511	0.000746	99.9	-135	-3.1e-06	0.012	-0.0011	8	6	0.212	2021-11-19 to 2025-05-07	0.182	0.618	38.2	5	NA	NA	NA
CCR-LF-2	Lithium, Total	Decreasing	No Trend	24	19	0.862	-0.431	0.00466	99.5	-114	-3.6e-06	0.027	-0.0013	8	8	0.0618	2021-11-19 to 2025-05-08	0.217	0.583	41.7	5	NA	NA	NA
CCR-LF-3	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	4	0.924	NA	NA	NA	NA	NA	NA	NA	8	1	0.292	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Lithium, Total	Stable	Increasing	24	24	0.197	-0.218	0.148	85.2	-59	NA	NA	NA	8	8	0.123	2021-11-19 to 2025-05-08	0.618	0.0461	95.4	17	1.6e-05	0.074	0.006
CCR-LF-5	Lithium, Total	Decreasing	No Trend	24	23	0.16	-0.329	0.0312	96.9	-87	-1.4e-06	0.024	-0.00052	8	8	0.12	2021-11-19 to 2025-05-08	0.148	0.706	29.4	4	NA	NA	NA
CCR-LF-6	Lithium, Total	Decreasing	Stable	24	24	0.181	-0.479	0.002	99.8	-123	-1.9e-06	0.019	-0.00069	8	8	0.141	2021-11-19 to 2025-05-08	-0.309	0.369	63.1	-8	NA	NA	NA
Pooled Background	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	No Trend	48	15	0.865	NA	NA	NA	NA	NA	NA	NA	8	4	0.79	NA	0.242	0.507	49.3	6	NA	NA	NA
CCR-BK-1	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Mercury, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.2	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Mercury, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.0617	NA	NA	NA	NA	NA	NA	NA	8	1	0.102	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Mercury, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	23	1	0.082	NA	NA	NA	NA	NA	NA	NA	8	1	0.135	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-3	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Mercury, Total	No Trend	No Trend	23	17	0.524	0.128	0.412	58.8	32	NA	NA	NA	8	7	0.561	2021-11-19 to 2025-05-08	0.286	0.386	61.4	8	NA	NA	NA
CCR-LF-6	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Mercury, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	46	2	0.144	NA	NA	NA	NA	NA	NA	NA	8	0	0	NA	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data if a seasonal trend was identified.

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-BK-1	Molybdenum, Total	Stable	Increasing	23	21	0.466	-0.154	0.325	67.5	-38	NA	NA	NA	8	8	0.392	2021-11-18 to 2025-05-07	0.857	0.00443	99.6	24	1.6e-06	0.00053	0.00059
CCR-BK-2	Molybdenum, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	10	0.421	NA	NA	NA	NA	NA	NA	NA	8	3	0.456	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Molybdenum, Total	Stable	Probably Increasing	24	20	0.433	-0.123	0.424	57.6	-33	NA	NA	NA	8	6	0.48	2021-11-19 to 2025-05-07	0.593	0.0595	94	16	NA	NA	NA
CCR-LF-2	Molybdenum, Total	No Trend	Probably Increasing	23	17	1.49	-0.156	0.324	67.6	-38	NA	NA	NA	8	8	0.126	2021-11-19 to 2025-05-08	0.54	0.0951	90.5	14	NA	NA	NA
CCR-LF-3	Molybdenum, Total	No Trend	Probably Increasing	23	19	0.622	0.125	0.426	57.4	31	NA	NA	NA	8	5	0.582	2021-11-18 to 2025-05-07	0.54	0.0951	90.5	14	NA	NA	NA
CCR-LF-4	Molybdenum, Total	Increasing	No Trend	24	23	0.262	0.503	0.000832	99.9	135	2.4e-06	0.02	0.00087	8	8	0.0801	2021-11-19 to 2025-05-08	0.265	0.445	55.5	7	NA	NA	NA
CCR-LF-5	Molybdenum, Total	No Trend	No Trend	24	15	1.98	-0.0881	0.577	42.3	-23	NA	NA	NA	8	6	0.558	2021-11-19 to 2025-05-08	0.4	0.212	78.8	11	NA	NA	NA
CCR-LF-6	Molybdenum, Total	No Trend	No Trend	23	19	0.762	0.0162	0.936	6.4	4	NA	NA	NA	8	8	0.917	2021-11-19 to 2025-05-08	0.182	0.618	38.2	5	NA	NA	NA
Pooled Background	Molybdenum, Total	Stable	No Trend	47	31	0.445	-0.0952	0.379	62.1	-93	NA	NA	NA	8	5	0.226	NA	0.322	0.352	64.8	8	NA	NA	NA
CCR-BK-1	Radium-226 & 228	No Trend	Stable	21	11	1.08	0.257	0.11	89	54	NA	NA	NA	8	4	0.967	2021-11-18 to 2025-05-07	-0.5	0.108	89.2	-14	NA	NA	NA
CCR-BK-2	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	5	1.62	NA	NA	NA	NA	NA	NA	NA	8	2	1.07	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Radium-226 & 228	No Trend	No Trend	20	18	1.37	0.0737	0.673	32.7	14	NA	NA	NA	8	6	1.39	2021-11-19 to 2025-05-07	-0.5	0.108	89.2	-14	NA	NA	NA
CCR-LF-2	Radium-226 & 228	Increasing	Stable	23	23	0.316	0.478	0.00153	99.8	121	0.00051	1.8	0.18	8	8	0.245	2021-11-19 to 2025-05-08	-0.214	0.536	46.4	-6	NA	NA	NA
CCR-LF-3	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	11	0.719	NA	NA	NA	NA	NA	NA	NA	8	3	0.711	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Radium-226 & 228	Stable	Stable	23	23	0.281	-0.131	0.398	60.2	-33	NA	NA	NA	8	8	0.18	2021-11-19 to 2025-05-08	0	1	0	0	NA	NA	NA
CCR-LF-5	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	24	6	1.57	NA	NA	NA	NA	NA	NA	NA	8	2	1.38	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	6	2.5	NA	NA	NA	NA	NA	NA	NA	8	1	2.19	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	44	16	1.36	NA	NA	NA	NA	NA	NA	NA	8	3	0.794	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	4	0.299	NA	NA	NA	NA	NA	NA	NA	8	1	0.028	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	3	0.215	NA	NA	NA	NA	NA	NA	NA	8	1	0.0142	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	5	0.275	NA	NA	NA	NA	NA	NA	NA	8	1	0.213	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Selenium, Total	No Trend	Stable	23	17	1.42	0.106	0.506	49.4	26	NA	NA	NA	8	8	0.442	2021-11-19 to 2025-05-08	0	1	0	0	NA	NA	NA
CCR-LF-3	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	10	0.188	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Stable	23	7	1.49	NA	NA	NA	NA	NA	NA	NA	8	4	0.349	2021-11-19 to 2025-05-08	-0.356	0.316	68.4	-8	NA	NA	NA
CCR-LF-5	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	4	1.47	NA	NA	NA	NA	NA	NA	NA	8	3	0.3	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Stable	23	9	0.226	NA	NA	NA	NA	NA	NA	NA	8	7	0.25	2021-11-19 to 2025-05-08	-0.189	0.61	39	-5	NA	NA	NA
Pooled Background	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	48	7	0.257	NA	NA	NA	NA	NA	NA	NA	8	2	0.0332	NA	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data if a seasonal trend was identified.

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

				Secular Trend Evaluation for All Data										Secular Trend Evaluation for Recent Data (subset of 8 most recent data points)									
		Mann Kendall Trends		Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)							Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)			Mann-Kendall Test (R programming, package = Kendall, version = 2.2.1, function = MannKendall, non-detects substituted by 0.5*reporting limit)								Thiel-Sen Test (R programming, package = zyp, version = 0.11-1, function = zyp.sen, non-detects substituted by 0.5*reporting limit)		
Location	Constituent	Trends, All Data	Trends, Recent Data	n	n, detected results	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)	n	n, detected results	Coefficient of Variance	recent data date range	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope	Intercept (for slope in units of change per year)	Sen Slope (units of change per year)
CCR-BK-1	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.225	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	4	0.302	NA	NA	NA	NA	NA	NA	NA	8	2	0.309	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-1	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	3	0.214	NA	NA	NA	NA	NA	NA	NA	8	2	0.121	2021-11-19 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-2	Thallium, Total	Increasing	Stable	22	15	1.47	0.325	0.0388	96.1	74	1.4e-07	0.00049	5e-05	8	8	0.297	2021-11-19 to 2025-05-08	-0.0714	0.902	9.8	-2	NA	NA	NA
CCR-LF-3	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	6	0.401	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-18 to 2025-05-07	NA	NA	NA	NA	NA	NA	NA
CCR-LF-4	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	4	1.46	NA	NA	NA	NA	NA	NA	NA	8	0	0	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-5	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	1.46	NA	NA	NA	NA	NA	NA	NA	8	1	0.228	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
CCR-LF-6	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.301	NA	NA	NA	NA	NA	NA	NA	8	2	0.302	2021-11-19 to 2025-05-08	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	46	6	0.263	NA	NA	NA	NA	NA	NA	NA	8	1	0.173	NA	NA	NA	NA	NA	NA	NA	NA

Note:

Mann Kendall test run on seasonally adjusted data if a seasonal trend was identified.

Mann Kendall Trends are classified based on Aziz (2003) guidance. Sen slope only calculated for increasing or decreasing trends as indicated by Mann-Kendall trend test results.

Table A-5. Upper Tolerance Limits (UTLs) & Updated Groundwater Protection Standards (GWPS), Assessment Monitoring

		Interwell Background Data Characterization [a]												Groundwater Protection Standard (GWPS) Determination					UTL Calculation Details		
Constituent	Units	n	n, non-detects	max reporting limit	max detected value	mean	median	min sample date	max sample date	standard deviation	coefficient of variation	Mann Kendall trend	data distribution (Shapiro-Francia) [b]	normalizing data transformation (if any)	UTL	UTL Result Detection Status [c]	MCL/RSL	GWPS	GWPS Source	UTL calculation method	UTL calculation details	Minimum Coverage (%)
Antimony, Total	mg/L	46	42	0.002	0.00062	0.00186	0.002	2016-06-08	2025-05-07	0.00046	0.247	More than 50% NDs	Non-Parametric	NA - Original Data	0.002	No	0.006	0.006	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.7
Barium, Total	mg/L	48	0	NA	0.15	0.0452	0.037	2016-06-08	2025-05-07	0.023	0.508	No Trend	Non-Parametric	NA - Original Data	0.15	Yes	2	2	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.9
Beryllium, Total	mg/L	46	42	0.001	0.0004	0.000935	0.001	2016-06-08	2025-05-07	0.000215	0.23	More than 50% NDs	Non-Parametric	NA - Original Data	0.001	No	0.004	0.004	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.7
Cadmium, Total	mg/L	48	46	0.001	0.00024	0.000965	0.001	2016-06-08	2025-05-07	0.000169	0.175	More than 50% NDs	Non-Parametric	NA - Original Data	0.001	No	0.005	0.005	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.9
Chromium, Total	mg/L	46	25	0.005	0.0087	0.0027	0.002	2016-06-08	2025-05-07	0.0017	0.629	More than 50% NDs	Non-Parametric	NA - Original Data	0.0087	Yes	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.7
Fluoride	mg/L	45	5	0.23	0.38	0.224	0.19	2016-08-10	2025-05-07	0.094	0.42	Stable	Non-Parametric	NA - Original Data	0.38	Yes	4	4	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.6
Lead, Total	mg/L	48	22	0.001	0.011	0.00105	0.001	2016-06-08	2025-05-07	0.00157	1.49	No Trend	Non-Parametric	NA - Original Data	0.011	Yes	0.015	0.015	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.9
Mercury, Total	mg/L	46	44	0.0002	0.0002	0.000198	0.0002	2016-06-08	2025-05-07	1.47e-05	0.0745	More than 50% NDs	Non-Parametric	NA - Original Data	0.0002	No	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.7
Molybdenum, Total	mg/L	47	16	0.005	0.0034	0.00262	0.0017	2016-06-08	2025-05-07	0.00182	0.694	Stable	Non-Parametric	NA - Original Data	0.005	No	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.8
Radium-226 & 228	pCi/L	44	28	2.74	3.13	0.603	0.362	2016-06-08	2025-05-07	0.709	1.18	More than 50% NDs	Non-Parametric	NA - Original Data	3.13	Yes	5	5	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.4
Selenium, Total	mg/L	48	41	0.005	0.0027	0.00444	0.005	2016-06-08	2025-05-07	0.00141	0.319	More than 50% NDs	Non-Parametric	NA - Original Data	0.005	No	0.05	0.05	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.9
Thallium, Total	mg/L	46	40	0.001	0.00076	0.000902	0.001	2016-06-08	2025-05-07	0.00027	0.3	More than 50% NDs	Non-Parametric	NA - Original Data	0.001	No	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.7

Note:

[a] Interwell background datasets are analyte specific and include data collected from background wells (CCR-AP-7 and WAP-1). Interwell background datasets were re-tested for outliers, secular trends, and data normality. No outliers were removed. Presented values are in original (untransformed) units.

[b] Parametric tolerance limit calculations were performed on normally distributed background data. If background data were not normally distributed, non-parametric tolerance limit calculations were performed.

[c] In some cases, the maximum value selected as the UTL is a non-detect result with an elevated reporting limit.

Units = mg/L, milligrams per liter. pCi/L = picocuries per liter.

Table A-6. Intrawell Upper Prediction Limit (UPL) Calculations

			Baseline Data Characterization [a]											Prediction Limits		Parametric UPL Calculation Statistics			Non-Parametric UPL Calculation Statistics	
Location	Constituent	Units	Baseline Distribution [a]	Prediction Interval Calculation	min baseline sample date	max baseline sample sample	n	n, non-detects	max	mean	standard deviation	Trend (Baseline Data)	degrees of freedom	future samples (M)	Prediction Limit Calculation Method	UPL	confidence level (%)	t (percentile of student's t-test)	t quantile	actual confidence level (%)	false positive rate (%)
CCR-LF-1	Arsenic, Total	mg/L	Lognormal	Parametric (ln Transform)	2016-06-08	2025-05-07	24	7	0.005	0.00142	0.00145	No Trend	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.00602	99.96	0.9975	3.104	NA	NA
CCR-LF-2	Arsenic, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-08	24	6	0.025	0.00454	0.00559	Stable	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.025	NA	NA	NA	85.7	14.3
CCR-LF-3	Arsenic, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-07	24	10	0.0088	0.00168	0.00227	No Trend	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0088	NA	NA	NA	85.7	14.3
CCR-LF-4	Arsenic, Total	mg/L	Normal	Parametric	2016-06-07	2025-05-08	24	0	0.035	0.0192	0.00698	No Trend	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0413	99.96	0.9975	3.104	NA	NA
CCR-LF-5	Arsenic, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-08	24	12	0.015	0.00253	0.00356	No Trend	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.015	NA	NA	NA	85.7	14.3
CCR-LF-6	Arsenic, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-08	24	13	0.0097	0.00193	0.00241	Not Evaluated - Majority of data (>50%) non-detect	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.0097	NA	NA	NA	85.7	14.3
CCR-LF-1	Cobalt, Total	mg/L	Lognormal	Parametric (ln Transform)	2016-06-08	2025-05-07	24	10	0.001	0.00048	0.000293	Increasing	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.00141	99.96	0.9975	3.104	NA	NA
CCR-LF-2	Cobalt, Total	mg/L	Normal	Parametric	2016-06-08	2025-05-08	24	0	0.014	0.00997	0.00225	Increasing	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0171	99.96	0.9975	3.104	NA	NA
CCR-LF-3	Cobalt, Total	mg/L	Normal	Parametric	2016-06-08	2025-05-07	23	10	0.001	0.000491	0.000242	Probably Decreasing	22	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.00126	99.96	0.9975	3.119	NA	NA
CCR-LF-4	Cobalt, Total	mg/L	Normal	Parametric	2016-06-07	2025-05-08	24	0	0.0018	0.00111	0.000369	Stable	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.00228	99.96	0.9975	3.104	NA	NA
CCR-LF-5	Cobalt, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-08	24	9	0.005	0.000756	0.00112	No Trend	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.005	NA	NA	NA	85.7	14.3
CCR-LF-6	Cobalt, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-08	23	4	0.016	0.00105	0.00327	No Trend	22	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.016	NA	NA	NA	85.2	14.8
CCR-LF-1	Lithium, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-07	24	10	0.05	0.0188	0.0205	Decreasing	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.05	NA	NA	NA	85.7	14.3
CCR-LF-2	Lithium, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-08	24	5	0.25	0.0377	0.0513	Decreasing	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.25	NA	NA	NA	85.7	14.3
CCR-LF-3	Lithium, Total	mg/L	Non-Parametric	Non-Parametric	2016-06-08	2025-05-07	24	20	0.05	0.0212	0.021	Not Evaluated - Majority of data (>50%) non-detect	23	4	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)	0.05	NA	NA	NA	85.7	14.3
CCR-LF-4	Lithium, Total	mg/L	Normal	Parametric	2016-06-07	2025-05-08	24	0	0.12	0.0845	0.0167	Stable	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.137	99.96	0.9975	3.104	NA	NA
CCR-LF-5	Lithium, Total	mg/L	Normal	Parametric	2016-06-08	2025-05-08	24	1	0.05	0.0238	0.00665	Decreasing	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0448	99.96	0.9975	3.104	NA	NA
CCR-LF-6	Lithium, Total	mg/L	Normal	Parametric	2016-06-08	2025-05-08	24	0	0.023	0.0177	0.00321	Decreasing	23	4	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)	0.0279	99.96	0.9975	3.104	NA	NA

Table A-7. Confidence Intervals

Confidence Interval (CI) Dataset									CI Calculation [a]			SSL Confirmation		Non-Parametric CI Statistics (if applicable)	
Location	Constituent	Units	n	max (Rank n)	min (Rank 1)	median	mean	standard deviation	CI calculation method	degrees of freedom	95% Confidence LCL	GWPS	LCL > GWPS?	bootstrap iterations	bootstrap median
CCR-LF-4	Radium-226 & 228	pCi/L	23	8.14	2.1	4.71	4.82	1.4	Calculation of the Confidence Interval Around the Normal Mean (Parametric)	22	4.23	5	No	NA	NA

Note:

Confidence intervals are calculated for analyte/well pairs with GWPS exceedances in the sampling event dataset.

[a] The 95% lower confience level (LCL) is compared to the Groundwater Protection Standard (GWPS) to confirm a statistically significant level (SSL).

Table A-8. Groundwater Protection Standard (GWPS) Summary

Background Location	Constituent	Units	Background Threshold Value (BTV)	BTV Type	MCL/RSL	GWPS	GWPS Source	BTV Calculation Method
CCR-BK-1 & CCR-BK-2	Antimony, Total	mg/L	0.002	Interwell UTL	0.006	0.006	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-LF-1	Arsenic, Total	mg/L	0.00602	Intrawell UPL	0.01	0.01	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-2	Arsenic, Total	mg/L	0.025	Intrawell UPL	0.01	0.025	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-3	Arsenic, Total	mg/L	0.0088	Intrawell UPL	0.01	0.01	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-4	Arsenic, Total	mg/L	0.0413	Intrawell UPL	0.01	0.0413	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-5	Arsenic, Total	mg/L	0.015	Intrawell UPL	0.01	0.015	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-6	Arsenic, Total	mg/L	0.0097	Intrawell UPL	0.01	0.01	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-BK-1 & CCR-BK-2	Barium, Total	mg/L	0.15	Interwell UTL	2	2	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Beryllium, Total	mg/L	0.001	Interwell UTL	0.004	0.004	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Cadmium, Total	mg/L	0.001	Interwell UTL	0.005	0.005	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Chromium, Total	mg/L	0.0087	Interwell UTL	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-LF-1	Cobalt, Total	mg/L	0.00141	Intrawell UPL	0.006	0.006	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-2	Cobalt, Total	mg/L	0.0171	Intrawell UPL	0.006	0.0171	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-3	Cobalt, Total	mg/L	0.00126	Intrawell UPL	0.006	0.006	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-4	Cobalt, Total	mg/L	0.00228	Intrawell UPL	0.006	0.006	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-5	Cobalt, Total	mg/L	0.005	Intrawell UPL	0.006	0.006	MCL/RSL	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-6	Cobalt, Total	mg/L	0.016	Intrawell UPL	0.006	0.016	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-BK-1 & CCR-BK-2	Fluoride	mg/L	0.38	Interwell UTL	4	4	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Lead, Total	mg/L	0.011	Interwell UTL	0.015	0.015	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-LF-1	Lithium, Total	mg/L	0.05	Intrawell UPL	0.04	0.05	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-2	Lithium, Total	mg/L	0.25	Intrawell UPL	0.04	0.25	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-3	Lithium, Total	mg/L	0.05	Intrawell UPL	0.04	0.05	BTV	Non-Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.3.1)
CCR-LF-4	Lithium, Total	mg/L	0.137	Intrawell UPL	0.04	0.137	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-5	Lithium, Total	mg/L	0.0448	Intrawell UPL	0.04	0.0448	BTV	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-LF-6	Lithium, Total	mg/L	0.0279	Intrawell UPL	0.04	0.04	MCL/RSL	Parametric Prediction Limit for M Future Values (USEPA, 2009 - Chapter 18.2.1)
CCR-BK-1 & CCR-BK-2	Mercury, Total	mg/L	0.0002	Interwell UTL	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Molybdenum, Total	mg/L	0.005	Interwell UTL	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Radium-226 & 228	pCi/L	3.13	Interwell UTL	5	5	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Selenium, Total	mg/L	0.005	Interwell UTL	0.05	0.05	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Thallium, Total	mg/L	0.001	Interwell UTL	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)

Table A-9. Groundwater Protection Standard (GWPS) Comparison Table

Location	Constituent	Units	Sample Date	Sample Result	Background Threshold Value (BTV)	BTV Type	GWPS	GWPS Exceedance	LCL	SSL Confirmed
CCR-LF-4	Radium-226 & 228	pCi/L	2025-05-08	5.34	3.13	Interwell UTL	5	Yes	4.23	No
CCR-LF-1	Antimony, Total	mg/L	2025-05-07	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-2	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-3	Antimony, Total	mg/L	2025-05-07	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-4	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-5	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-6	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	Interwell UTL	0.006	No	NA	No
CCR-LF-1	Arsenic, Total	mg/L	2025-05-07	0.005 U	0.00602	Intrawell UPL	0.01	No	NA	No
CCR-LF-2	Arsenic, Total	mg/L	2025-05-08	0.001 J	0.025	Intrawell UPL	0.025	No	NA	No
CCR-LF-3	Arsenic, Total	mg/L	2025-05-07	0.005 U	0.0088	Intrawell UPL	0.01	No	NA	No
CCR-LF-4	Arsenic, Total	mg/L	2025-05-08	0.02	0.0413	Intrawell UPL	0.0413	No	NA	No
CCR-LF-5	Arsenic, Total	mg/L	2025-05-08	0.005 U	0.015	Intrawell UPL	0.015	No	NA	No
CCR-LF-6	Arsenic, Total	mg/L	2025-05-08	0.005 U	0.0097	Intrawell UPL	0.01	No	NA	No
CCR-LF-1	Barium, Total	mg/L	2025-05-07	0.031	0.15	Interwell UTL	2	No	NA	No
CCR-LF-2	Barium, Total	mg/L	2025-05-08	0.011	0.15	Interwell UTL	2	No	NA	No
CCR-LF-3	Barium, Total	mg/L	2025-05-07	0.019	0.15	Interwell UTL	2	No	NA	No
CCR-LF-4	Barium, Total	mg/L	2025-05-08	0.0097	0.15	Interwell UTL	2	No	NA	No
CCR-LF-5	Barium, Total	mg/L	2025-05-08	0.021	0.15	Interwell UTL	2	No	NA	No
CCR-LF-6	Barium, Total	mg/L	2025-05-08	0.023	0.15	Interwell UTL	2	No	NA	No
CCR-LF-1	Beryllium, Total	mg/L	2025-05-07	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-2	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-3	Beryllium, Total	mg/L	2025-05-07	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-4	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-5	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-6	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.004	No	NA	No
CCR-LF-1	Cadmium, Total	mg/L	2025-05-07	0.001 U	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-2	Cadmium, Total	mg/L	2025-05-08	0.0048	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-3	Cadmium, Total	mg/L	2025-05-07	0.001 U	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-4	Cadmium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-5	Cadmium, Total	mg/L	2025-05-08	0.00027 J	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-6	Cadmium, Total	mg/L	2025-05-08	0.00013 J	0.001	Interwell UTL	0.005	No	NA	No
CCR-LF-1	Chromium, Total	mg/L	2025-05-07	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-2	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-3	Chromium, Total	mg/L	2025-05-07	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-4	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-5	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-6	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	Interwell UTL	0.1	No	NA	No
CCR-LF-1	Cobalt, Total	mg/L	2025-05-07	0.001 U	0.00141	Intrawell UPL	0.006	No	NA	No
CCR-LF-2	Cobalt, Total	mg/L	2025-05-08	0.011	0.0171	Intrawell UPL	0.0171	No	NA	No
CCR-LF-3	Cobalt, Total	mg/L	2025-05-07	0.001 U	0.00126	Intrawell UPL	0.006	No	NA	No
CCR-LF-4	Cobalt, Total	mg/L	2025-05-08	0.0012	0.00228	Intrawell UPL	0.006	No	NA	No
CCR-LF-5	Cobalt, Total	mg/L	2025-05-08	0.00011 J	0.005	Intrawell UPL	0.006	No	NA	No
CCR-LF-6	Cobalt, Total	mg/L	2025-05-08	0.00014 J	0.016	Intrawell UPL	0.016	No	NA	No
CCR-LF-1	Fluoride	mg/L	2025-05-07	0.1 U	0.38	Interwell UTL	4	No	NA	No
CCR-LF-2	Fluoride	mg/L	2025-05-08	1 U	0.38	Interwell UTL	4	No	NA	No
CCR-LF-3	Fluoride	mg/L	2025-05-07	0.27	0.38	Interwell UTL	4	No	NA	No
CCR-LF-4	Fluoride	mg/L	2025-05-08	1 U	0.38	Interwell UTL	4	No	NA	No
CCR-LF-5	Fluoride	mg/L	2025-05-08	0.16 J	0.38	Interwell UTL	4	No	NA	No
CCR-LF-6	Fluoride	mg/L	2025-05-08	0.41	0.38	Interwell UTL	4	No	NA	No
CCR-LF-1	Lead, Total	mg/L	2025-05-07	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-2	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-3	Lead, Total	mg/L	2025-05-07	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-4	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-5	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-6	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	Interwell UTL	0.015	No	NA	No
CCR-LF-1	Lithium, Total	mg/L	2025-05-07	0.008 U	0.05	Intrawell UPL	0.05	No	NA	No
CCR-LF-2	Lithium, Total	mg/L	2025-05-08	0.016	0.25	Intrawell UPL	0.25	No	NA	No
CCR-LF-3	Lithium, Total	mg/L	2025-05-07	0.008 U	0.05	Intrawell UPL	0.05	No	NA	No
CCR-LF-4	Lithium, Total	mg/L	2025-05-08	0.083	0.137	Intrawell UPL	0.137	No	NA	No
CCR-LF-5	Lithium, Total	mg/L	2025-05-08	0.016	0.0448	Intrawell UPL	0.0448	No	NA	No

Note:

BTV = Background Threshold Value, which is either the Upper Threshold Limit (UTL) or Upper Prediction Limit (UPL). GWPS = Groundwater Protection Standard, which is the max value between the BTV and the Maximum Contaminant Level/Regional Screening Level. LCL = 95% Lower Confidence Level. SSL = Statistically significant level, which is identified when an event result exceeds the GWPS and the LCL is greater than the GWPS.

Location	Constituent	Units	Sample Date	Sample Result	Background Threshold Value (BTV)	BTV Type	GWPS	GWPS Exceedance	LCL	SSL Confirmed
CCR-LF-6	Lithium, Total	mg/L	2025-05-08	0.013	0.0279	Intrawell UPL	0.04	No	NA	No
CCR-LF-1	Mercury, Total	mg/L	2025-05-07	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-2	Mercury, Total	mg/L	2025-05-08	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-3	Mercury, Total	mg/L	2025-05-07	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-4	Mercury, Total	mg/L	2025-05-08	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-5	Mercury, Total	mg/L	2025-05-08	0.00016 J	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-6	Mercury, Total	mg/L	2025-05-08	0.0002 U	0.0002	Interwell UTL	0.002	No	NA	No
CCR-LF-1	Molybdenum, Total	mg/L	2025-05-07	0.005 U	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-2	Molybdenum, Total	mg/L	2025-05-08	0.0025 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-3	Molybdenum, Total	mg/L	2025-05-07	0.0037 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-4	Molybdenum, Total	mg/L	2025-05-08	0.028	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-5	Molybdenum, Total	mg/L	2025-05-08	0.005 U	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-6	Molybdenum, Total	mg/L	2025-05-08	0.0022 J	0.005	Interwell UTL	0.1	No	NA	No
CCR-LF-1	Radium-226 & 228	pCi/L	2025-05-07	0.549 U	3.13	Interwell UTL	5	No	NA	No
CCR-LF-2	Radium-226 & 228	pCi/L	2025-05-08	4.01	3.13	Interwell UTL	5	No	NA	No
CCR-LF-3	Radium-226 & 228	pCi/L	2025-05-07	0.52 U	3.13	Interwell UTL	5	No	NA	No
CCR-LF-5	Radium-226 & 228	pCi/L	2025-05-08	0.217 U	3.13	Interwell UTL	5	No	NA	No
CCR-LF-6	Radium-226 & 228	pCi/L	2025-05-08	0.166 U	3.13	Interwell UTL	5	No	NA	No
CCR-LF-1	Selenium, Total	mg/L	2025-05-07	0.005 U	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-2	Selenium, Total	mg/L	2025-05-08	0.0021 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-3	Selenium, Total	mg/L	2025-05-07	0.005 U	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-4	Selenium, Total	mg/L	2025-05-08	0.005 U	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-5	Selenium, Total	mg/L	2025-05-08	0.005 U	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-6	Selenium, Total	mg/L	2025-05-08	0.0014 J	0.005	Interwell UTL	0.05	No	NA	No
CCR-LF-1	Thallium, Total	mg/L	2025-05-07	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-2	Thallium, Total	mg/L	2025-05-08	0.0006 J	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-3	Thallium, Total	mg/L	2025-05-07	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-4	Thallium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-5	Thallium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.002	No	NA	No
CCR-LF-6	Thallium, Total	mg/L	2025-05-08	0.001 U	0.001	Interwell UTL	0.002	No	NA	No

Note:

BTV = Background Threshold Value, which is either the Upper Threshold Limit (UTL) or Upper Prediction Limit (UPL). GWPS = Groundwater Protection Standard, which is the max value between the BTV and the Maximum Contaminant Level/Regional Screening Level. LCL = 95% Lower Confidence Level. SSL = Statistically significant level, which is identified when an event result exceeds the GWPS and the LCL is greater than the GWPS.

APPENDIX B
Field Forms

HALEY ALDRICH

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown	Client: SIGECO	File Number: 0129420-035-001-01
Location:	Evansville, IN	Weather:	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, R. Elwer
Method:	Dip	Comments:	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table) (ft bgs)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
AshPond	CCR-BK-1R	5/5/25	16:45	N	61.52	60.61	-	64.00	483.39	421.87	DTW Below pump. Pump @60.95	
	CCR-BK-2	5/5/25	14:11	N	17.03	25.14	-	25.50	430.60	413.57		
	CCR-AP-1R	5/5/25	16:14	N	18.47	33.71	-	39.87	467.57	449.10		
	CCR-AP-2IR	5/5/25	12:26	N	39.26	86.38	96.68	64.78	465.79	426.53		
	CCR-AP-2R	5/5/25	12:28	N	49.40	49.77	56.03	56.03	468.13	418.73		
	CCR-AP-3R	5/5/25	12:36	N	40.68	40.79	46.77	47.00	449.41	408.73	40.74	
	CCR-AP-3I	5/5/25	12:35	N	32.24	69.27	-	77.50	450.02	417.78		
	CCR-AP-4R	5/5/25	16:05	N	34.03	44.54	-	50.58	475.38	441.35		
	CCR-AP-5R	5/5/25	12:41	N	36.65	44.41	-	47.14	453.14	416.49		
	CCR-AP-6	5/5/25	17:01	N	15.73	38.26	-	41.67	461.36	445.63		
	CCR-AP-7R	5/5/25	16:35	N	35.18	49.77	-	56.07	488.57	453.39		
	CCR-AP-8	5/5/25	11:58	N	3.55	12.83	-	19.37	416.84	413.29		
	CCR-AP-9	5/5/25	14:56	N	7.95	26.96	-	35.20	391.14	383.19		
	CCR-AP-10	5/5/25	15:57	N	36.85	40.47	-	46.04	474.01	437.16		
	CCR-AP-11	5/5/25	15:24	N	9.38	N/A	-	25.27	376.72	367.34		
	FD-PZ-1	5/5/25	12:05	N	8.12	N/A	18.39	18.50	418.94	410.82		
	FD-PZ-2	5/5/25	11:42	N	2.88	N/A	33.15	34.00	423.34	420.46	water in the well box	
	FD-PZ-3S	5/5/25	-	-	-	N/A	18.78	19.60	420.45	#VALUE!	cannot gauge, well area flooded/ 10.21' DTB 18:20' 05/08/25	
	FD-PZ-3D	5/5/25	-	-	-	N/A	33.68	34.00	420.67	#VALUE!	cannot gauge, well area flooded/ 13.71' DTB 33.68 05/08/25	
	FD-PZ-4	5/5/25	12:15	N	10.52	N/A	-	23.00	419.19	408.67		
	HA-PP-1	5/5/25	15:00	N	2.53	N/A	-	3.50	381.82	379.29		
	HA-PP-2	5/5/25	15:05	N	2.28	N/A	-	3.50	381.51	379.23		
	CMA-01	5/5/25	12:44	N	32.29	N/A	-	47.31	445.87	413.58		
	CMA-01I	5/5/25	12:46	N	33.12	N/A	-	72.45	446.25	413.13		
	CMA-02	5/5/25	12:48	N	27.10	N/A	-	50.85	436.63	409.53		
	CMA-02I	5/5/25	12:49	N	26.75	N/A	-	76.18	436.51	409.76		
	CMA-03	5/5/25	13:53	N	28.07	N/A	-	50.95	436.29	408.22		
	CMA-03I	5/5/25	12:54	N	28.78	N/A	-	76.65	436.16	407.38		
	CMA-04	5/5/25	12:57	N	25.20	N/A	-	46.98	435.89	410.69		

HALEY ALDRICH

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown	Client: SIGECO	File Number: 0129420-035-001-01
Location:	Evansville, IN	Weather:	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, R. Elwer
Method:	Dip	Comments:	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table) (ft bgs)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
Ash Pond	CMA-04I	5/5/25	12:58	N	27.26	N/A	-	76.56	436.21	408.95		
	CMA-04BR	5/5/25	12:58	N	17.63	N/A	-	108.21	436.54	418.91		
	CMA-05	5/5/25	13:03	N	21.51	N/A	-	42.96	436.26	414.75		
	CMA-05I	5/5/25	13:02	N	21.98	N/A	-	67.16	436.52	414.54		
	CMA-06	5/5/25	15:12	N	6.76	N/A	-	33.94	392.08	385.32		
	CMA-06I	5/5/25	15:11	N	5.08	N/A	-	59.55	392.22	387.14		
	CMA-06BR	5/5/25	15:10	N	7.58	N/A	-	70.55	392.44	384.86		
	CMA-07I	5/5/25	15:38	N	15.70	N/A	-	47.42	419.95	404.25		
	CMA-08I	5/5/25	15:35	N	35.30	N/A	-	52.85	443.25	407.95		
Landfill	CCR-LF-1	5/5/25	13:31	N	6.94	18.29	-	19.00	435.63	428.69		
	CCR-LF-2	5/5/25	15:25	N	27.63	44.34	-	45.00	473.00	445.37		
	CCR-LF-3	5/5/25	13:20	N	31.20	34.15	-	35.00	484.75	453.55		
	CCR-LF-4	5/5/25	16:32	N	47.68	54.34	-	55.00	478.85	431.17		
	CCR-LF-5	5/5/25	14:04	N	21.24	29.93	-	30.00	430.41	409.17		
	CCR-LF-6	5/5/25	13:55	N	7.18	8.79	-	9.66	412.05	404.87		
Sed Pond	CCR-SP-1R	5/5/25	13:46	N	10.58	16.46	-	20.00	403.94	393.36		
	CCR-SP-2	5/5/25	13:42	N	13.55	15.26	-	20.00	403.23	389.68		
	CCR-SP-3	5/5/25	13:50	N	5.50	15.71	-	20.00	403.57	398.07		

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/07/25

Sampling Data:

Well ID:	CCR-LF-1	Well Depth as Built:	19.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	14:02	Well Depth Measured:	NA ft	Initial Depth To Water:	6.9 ft	Field Parameter Device:	HORIBA
Finish Time:	14:45	Depth To Top Of Screen:	9.0 ft	Depth Of Pump Intake:	18.64 ft	Tubing Present In Well:	■ Yes ☐ No
		Depth To Bottom Of Scree	19.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:02	8.22	180	180	0.5	17.25	6.63	3.10	4.04	6.6	165	
14:07	9.22	180	180	1.0	16.91	6.54	2.28	2.20	3.4	173	
14:12	10.11	180	180	1.8	16.92	6.53	2.18	1.94	3.1	176	
14:17	10.90	180	180	2.5	16.93	6.52	2.16	1.87	3.2	179	
14:22	11.54	180	180	3.2	16.92	6.53	2.13	1.83	2.9	181	
14:27	12.05	180	180	4.0	16.91	6.53	2.08	2.25	3.2	184	
14:32	12.15	180	180	5.0	16.66	6.52	2.04	2.49	2.6	188	
14:37	12.16	180	180	5.5	16.63	6.52	2.04	2.55	2.7	191	
14:42	12.12	180	180	6.2	16.57	6.51	2.03	2.53	2.3	193	
											Sample ID: CCR-LF-1-050725
											Sample Time: 14:45
											7 L Purged Total

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	05/08/25

Sampling Data:

Well ID:	CCR-LF-2	Well Depth as Built:	45.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	8:01	Well Depth Measured:	NA ft	Initial Depth To Water:	27.55 ft	Field Parameter Device:	HORIBA
Finish Time:	8:55	Depth To Top Of Screen:	35.0 ft	Depth Of Pump Intake:	44.28 ft	Tubing Present In Well:	■ Yes ☐ No
		Depth To Bottom Of Scree	45.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
8:07	27.70	400	400	0.2	16.65	6.40	26	2.23	4.0	160	
8:12	27.64	400	400	2.5	16.49	6.36	24.6	0.57	3.8	122	
8:17	27.64	400	400	4.5	16.48	6.37	24.6	0.44	3.3	114	
8:22	27.70	400	400	6.5	16.48	6.37	24.6	0.39	3.1	112	
8:27	27.72	400	400	8.5	16.46	6.37	24.6	0.36	3.5	110	
8:32	27.68	400	400	10.5	16.42	6.38	24.6	0.33	2.6	106	
8:37	27.70	400	400	12.5	16.39	6.38	24.6	0.3	2.5	101	
8:42	27.68	400	400	14.5	16.37	6.38	24.7	0.29	2.4	94	
8:47	27.72	400	400	16.5	16.36	6.38	24.7	0.27	2.4	87	
											Sample ID: CCR-LF-2-050825
											Sample Time: 08:50
											Field Duplicate Taken
											Dup ID: DUP-2-050825
											Dup Time: 12:00
											18 L Purged Total

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	05/07/25

Sampling Data:

Well ID:	CCR-LF-3	Well Depth as Built:	35.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	14:25	Well Depth Measured:	NA ft	Initial Depth To Water:	31.15 ft	Field Parameter Device:	HORIBA
Finish Time:	15:45	Depth To Top Of Screen:	25.0 ft	Depth Of Pump Intake:	34.35 ft	Tubing Present In Well:	■ Yes ☐ No
		Depth To Bottom Of Scree	35.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:40	31.18	200	200	0.75	26.41	8.38	2.21	7.34	0.0	224	
14:45	31.27	200	200	1.5	17.51	7.71	1.75	6.09	0.0	268	
14:50	31.27	200	200	1.9	17.25	7.56	1.68	5.96	0.0	282	
14:55	31.32	200	200	2.65	17.16	7.46	1.65	5.68	0.4	292	
15:00	31.32	200	200	3.4	17.06	7.43	1.63	5.62	0.4	300	
15:05	31.32	200	200	4.9	17.01	7.4	1.63	5.79	0.0	306	
15:10	31.32	200	200	5.3	17.03	7.39	1.63	5.68	0.0	309	
											Sample ID: CCR-LF-3-050725
											Sample Time: 15:10
											5.3 L Purged Total

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R.Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	05/08/25

Sampling Data:

Well ID:	CCR-LF-4	Well Depth as Built:	55.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	7:35	Well Depth Measured:	NA ft	Initial Depth To Water:	48.25 ft	Field Parameter Device:	HORIBA U-52
Finish Time:	9:45	Depth To Top Of Screen:	45.0 ft	Depth Of Pump Intake:	54.34 ft	Tubing Present In Well:	☐ Yes ☐ No
		Depth To Bottom Of Scree	55.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (^{o}C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
7:40	48.62	120	120	0.8	17.17	5.72	18.1	5.08	4.7	326	
7:45	48.59	120	120	1.1	16.34	6.66	19.0	2.66	4.0	132	
7:50	48.85	140	140	1.9	15.8	6.67	19.5	1.31	6.7	40	
7:55	49.05	140	140	2.3	15.78	6.69	19.5	0.8	3.0	-8	
8:00	49.15	130	130	2.5	15.79	6.69	19.5	0.74	2.8	-17	
8:05	49.22	130	130	2.8	15.83	6.7	19.5	0.71	6.6	-19	
8:10	49.33	130	130	3.0	15.81	6.69	19.5	0.66	9.9	-20	
8:15	49.40	130	130	3.2	15.82	6.69	19.4	0.62	10.3	-22	
8:20	49.43	120	120	3.4	15.84	6.7	19.3	0.65	11.6	-21	
8:25	49.55	100	100	4.5	15.88	6.7	18.9	0.73	11.8	-19	
8:30	49.65	100	100	5.1	15.9	6.71	18.4	0.83	12.7	-13	
8:35	49.78	100	100	5.7	15.88	6.71	18.2	0.91	11.1	-9	
8:40	49.70	100	100	6.6	15.88	6.72	18.2	0.96	10.7	-8	
8:45	49.87	100	100	7.6	15.87	6.72	18.2	0.83	9.8	-7	
8:50	49.93	100	100	8.5	15.86	6.72	18.2	0.79	9.6	-6	Sample ID: CCR-LF-4-050825
8:55	50.00	100	100	9.1	15.87	6.72	18.2	0.75	9.6	-6	Sample Time: 09:00
9:00	50.07	100	100	10.0	15.87	6.72	18.2	0.72	9.3	-6	
											10 L Purged Total
											Water Level after Sampling: 50.74'

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	05/08/25

Sampling Data:

Well ID:	CCR-LF-5	Well Depth as Built:	30.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	9:55	Well Depth Measured:	NA ft	Initial Depth To Water:	21.25 ft	Field Parameter Device:	HORIBA U-52
Finish Time:	11:00	Depth To Top Of Screen:	20.0 ft	Depth Of Pump Intake:	29.91 ft	Tubing Present In Well:	■ Yes ☐ No
		Depth To Bottom Of Scree	30.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
10:00	21.38	200	200	0.8	16.15	7.42	5.43	3.74	3.7	278	
10:05	21.38	200	200	1.7	15.90	7.03	4.95	1.04	9.9	265	
10:10	21.41	200	200	2.3	15.84	7.00	4.83	0.73	7.6	258	
10:15	21.41	200	200	3	15.83	6.98	4.85	0.61	6.6	252	
10:20	21.43	200	200	4.5	15.86	6.98	4.96	0.53	5.1	246	
10:25	21.43	200	200	5.3	15.91	6.97	5.07	0.49	4.8	243	
10:30	21.43	200	200	6.1	15.91	6.97	5.16	0.47	3.3	241	
10:35	21.43	200	200	6.6	15.97	6.96	5.21	0.44	3.2	239	Stable (DO within 0.5)
											Sample ID: CCR-LF-5-050825
											Sample Time: 10:35
											6.6 L Purged Total

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	R. Elwer
CONTRACTOR	N/A	**SAMPLING DATE**	05/08/25

Sampling Data:

Well ID:	CCR-LF-6	Well Depth as Built:	9.66 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	11:05	Well Depth Measured:	NA ft	Initial Depth To Water:	7.7 ft	Field Parameter Device:	HORIBA U-52
Finish Time:	12:30	Depth To Top Of Screen:	4.66 ft	Depth Of Pump Intake:	8.95 ft	Tubing Present In Well:	■ Yes ☐ No
		Depth To Bottom Of Scree	9.66 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
11:10	7.7	280	280	0.8	15.02	7.83	1.79	2.19	9.4	305	
11:15	7.7	320	320	1.5	14.77	7.3	1.81	1.26	19.2	309	
11:20	7.7	340	340	3.0	14.93	7.14	1.85	1.45	11.8	309	
11:25	7.7	340	340	4.7	14.92	7.12	1.88	1.48	8.7	309	
11:30	7.8	340	340	6.4	14.98	7.13	1.90	1.57	4.9	306	
11:35	7.9	340	340	7.6	14.98	7.17	1.92	1.61	3.3	305	
11:40	7.9	340	340	8.7	14.94	7.16	1.94	1.67	2.1	306	
11:45	7.9	340	340	9.8	14.9	7.14	1.95	1.69	1.1	309	
11:50	7.9	340	340	11.0	14.88	7.12	1.96	1.70	0.9	310	
											Sample ID: CCR-LF-6-050825
											Sample Time: 11:50
											MS/MSD Taken
											11 L Purged Total

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

HALEY ALDRICH

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown	Client: SIGECO	File Number: 0129420-037
Location:	Evansville, IN	Weather: --	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, O. Alston
Method:	Dip	Comments: --	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table) (ft bgs)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
AshPond	CCR-BK-1R	--	--	--	--	60.68	--	64.00	483.39	--	Water level below top of pump at 60.68'	OA
	CCR-BK-2	--	--	--	--	25.09	--	25.50	430.60	--	Water level below top of pump at 25.09'	OA
	CCR-AP-1R	11/3/25	14:22	N	23.34	NM	--	39.87	467.57	444.23		OA
	CCR-AP-2IR	11/3/25	11:22	N	46.14	NM	--	64.78	465.79	419.65		OA
	CCR-AP-2R	--	--	--	--	49.82	--	56.03	468.13	--	Water level below top of pump at ~49.82	OA
	CCR-AP-3R	--	--	--	--	NM	--	47.00	449.41	--	Water level below top of pump	OA
	CCR-AP-3I	11/3/25	10:21	N	34.11	NM	--	77.50	450.02	415.91		OA
	CCR-AP-4R	11/3/25	14:04	N	38.93	NM	--	50.58	475.38	436.45		OA
	CCR-AP-5R	11/3/25	11:17	N	38.63	NM	--	47.14	453.14	414.51		OA
	CCR-AP-6	11/3/25	12:52	N	19.39	NM	--	41.67	461.36	441.97	No lock	OA
	CCR-AP-7R	11/3/25	12:47	N	36.64	NM	--	56.07	488.57	451.93		OA
	CCR-AP-8	11/3/25	13:09	N	4.54	NM	--	19.37	416.84	412.30		OA
	CCR-AP-9	11/3/25	14:41	N	9.97	NM	--	35.20	391.14	381.17		OA
	CCR-AP-10	--	14:08	--	--	40.66	--	46.04	474.01	--	Water level below top of pump at 40.66'	OA
	CCR-AP-11	11/3/25	13:40	N	14.28	N/A	--	25.27	376.72	362.44	No lock	OA
	FD-PZ-1	11/3/25	13:17	N	8.43	N/A	--	18.50	418.93	410.50		OA
	FD-PZ-2	11/3/25	13:02	N	5.04	N/A	--	34.00	423.37	418.33		OA
	FD-PZ-3S	11/3/25	13:23	N	10.46	N/A	--	19.60	420.09	409.63		OA
	FD-PZ-3D	11/3/25	13:25	N	14.30	N/A	--	34.00	420.30	406.00		OA
	FD-PZ-4	11/3/25	13;28	N	11.10	N/A	--	23.00	419.19	408.09		OA
	FD-PZ-5	11/3/25	13:15	N	27.79	N/A	--	--	439.66	411.87		OA
	FD-PZ-6	11/3/25	11:29	N	38.26	N/A	--	--	467.90	429.64	Guard pipe sand pack settled below well pad	OA
	HA-PP-1	11/3/25	14:59	N	2.63	N/A	--	3.50	381.82	379.19		OA
	HA-PP-2	11/3/25	15:01	N	3.48	N/A	--	3.50	381.51	378.03		OA
	CMA-01	11/3/25	11:11	N	34.05	N/A	--	47.31	445.87	411.82		OA
	CMA-01I	11/3/25	11:12	N	34.74	N/A	--	72.45	446.25	411.51		OA
	CMA-02	11/3/25	11:05	N	29.25	N/A	--	50.85	436.63	407.38		OA
	CMA-02I	11/3/25	11:07	N	28.84	N/A	--	76.18	436.51	407.67		OA
	CMA-03	11/3/25	11:03	N	30.89	N/A	--	50.95	436.29	405.40		OA

HALEY ALDRICH

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5.1-01
Rev (06-09-09

Project:	AB Brown	Client: SIGECO	File Number: 0129420-037
Location:	Evansville, IN	Weather: --	Project Manager: Neal Kochis
Reference:	Top of Casing	Units: ft	Field Representative: F. Reed, O. Alston
Method:	Dip	Comments: --	

CCR Unit	Monitoring Well ID	Date	Time	Well Dry? (Y/N)	Depth to Water (ft)	Depth to top of pump	Well Bottom (Measured)	Well Bottom (From Table) (ft bgs)	Riser Elevation (ft)	Water Elevation (ft)	Remarks	Measured By
Ash Pond	CMA-03I	11/3/25	11:02	N	31.01	N/A	--	76.65	436.16	405.15		OA
	CMA-04	11/3/25	10:59	N	26.33	N/A	--	46.98	435.89	409.56		OA
	CMA-04I	11/3/25	10:57	N	28.83	N/A	--	76.56	436.21	407.38		OA
	CMA-04BR	11/3/25	10:56	N	17.83	N/A	--	108.21	436.54	418.71		OA
	CMA-05	11/3/25	10:50	N	25.57	N/A	--	42.96	436.26	410.69		FR
	CMA-05I	11/3/25	10:52	N	25.98	N/A	--	67.16	436.52	410.54		OA
	CMA-06	11/3/25	14:51	N	11.53	N/A	--	33.94	392.08	380.55		OA
	CMA-06I	11/3/25	14:48	N	9.12	N/A	--	59.55	392.22	383.10		OA
	CMA-06BR	11/3/25	14:53	N	10.33	N/A	--	70.55	392.44	382.11		OA
	CMA-07I	11/3/25	13:49	N	21.10	N/A	--	47.42	419.95	398.85		OA
	CMA-08I	11/3/25	13:52	N	41.99	N/A	--	52.85	443.25	401.26		OA
Landfill	CCR-LF-1	11/3/25	11:49	N	8.94	NM	--	19.00	435.63	426.69		OA
	CCR-LF-2	11/3/25	11:37	N	28.51	NM	--	45.00	473.00	444.49		OA
	CCR-LF-3	11/3/25	11:42	N	31.39	NM	--	35.00	484.75	453.36		OA
	CCR-LF-4	11/3/25	12:41	N	47.97	NM	--	55.00	478.85	430.88		OA
	CCR-LF-5	11/3/25	12:18	N	22.11	NM	--	30.00	430.41	408.30		OA
	CCR-LF-6	11/3/25	12:11	N	7.84	NM	--	9.66	412.05	404.21		OA
Sed Pond	CCR-SP-1R	11/3/25	12:06	N	12.37	NM	--	20.00	403.94	391.57	Sediment pond water level	OA
	CCR-SP-2	11/3/25	12:01	N	14.98	NM	--	20.00	403.23	388.25	Just below 3'	OA
	CCR-SP-3	11/3/25	11:57	N	8.04	NM	--	20.00	403.57	395.53		OA

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/04/25

Sampling Data:

Well ID:	CCR-LF-1	Well Depth as Built:	19.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	9:02	Well Depth Measured:	NM ft	Initial Depth To Water:	8.98 ft	Field Parameter Device:	Horiba U-52
Finish Time:	12:00	Depth To Top Of Screen:	9.0 ft	Depth Of Pump Intake:	18.64 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	19.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (^{o}C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
9:07	10.52	220	220	0.2	19	6.42	2.32	2.91	2.2	233	
9:12	11.59	220	220	1.8	19.61	6.56	2.36	1.33	1.5	211	
9:17	12.14	220	220	2.4	19.89	6.58	2.36	1.08	1.1	203	
9:22	12.15	220	220	3.5	20.07	6.62	2.36	1.04	1.2	201	
9:27	12.15	220	220	4.6	20.2	6.63	2.27	2.17	1.1	201	
9:32	12.17	220	220	5.7	20.29	6.7	2.25	3.05	6.5	203	
9:37	12.57	220	220	6.8	20.31	6.62	2.29	2.85	13.8	206	
9:42	12.90	220	220	7.9	20.35	6.68	2.32	2.98	18.9	203	
9:47	13.34	220	220	8.8	20.38	6.6	2.34	3.11	20.7	206	
9:50	13.54	220	220	9.1	20.4	6.74	2.34	3.36	23.4	200	
9:53	13.78	220	220	9.9	20.42	6.7	2.34	2.88	35.1	202	
9:56	14.05	220	220	10.5	20.4	6.7	2.35	2.41	47.2	200	
9:59	14.26	120	120	11	20.4	6.58	2.35	2.35	53.3	200	Flow rate reduced to mitigate drawdown
10:02	14.45	120	120	11.4	20.31	6.65	2.36	2.02	67.8	198	
10:05	14.58	120	120	11.8	20.28	6.63	2.36	1.82	72.2	197	
10:08	14.65	120	120	12.1	20.29	6.68	2.36	1.74	83.3	194	
10:11	14.78	120	120	12.5	20.3	6.71	2.37	1.56	95.8	191	
10:14	14.91	120	120	12.9	20.32	6.69	2.37	1.48	102	191	
10:17	15.08	120	120	13.3	20.36	6.69	2.37	1.42	111	189	

well volume = 3.14 (PI) x radius^{2} x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/04/25

Sampling Data:

Well ID:	CCR-LF-1	Well Depth as Built:	19.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	9:02	Well Depth Measured:	NM ft	Initial Depth To Water:	8.98 ft	Field Parameter Device:	Horiba U-52
Finish Time:	12:00	Depth To Top Of Screen:	9.0 ft	Depth Of Pump Intake:	18.64 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	19.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (^{o}C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
10:20	15.22	120	120	13.7	20.42	6.7	2.36	1.38	122	187	
10:23	15.38	120	120	14.1	20.42	6.7	2.36	1.36	124	186	
10:26	15.49	120	120	14.5	20.36	6.7	2.36	1.37	125	184	
											Sample ID: CCR-LF-1-110425
											Sample Time: 10:30
											15.2 Liters purged

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/04/25

Sampling Data:

Well ID:	CCR-LF-2	Well Depth as Built:	45.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	14:07	Well Depth Measured:	NM ft	Initial Depth To Water:	28.41 ft	Field Parameter Device:	Horiba U-52
Finish Time:	15:30	Depth To Top Of Screen:	35.0 ft	Depth Of Pump Intake:	44.28 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	45.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:12	28.48	320	320	0.2	18.94	6.54	27.6	1.45	1.6	140	
14:17	28.48	320	320	2	18.53	6.47	26.1	0.52	1.9	139	
14:22	28.48	320	320	3.8	18.49	6.45	26.1	0.41	2.6	139	
14:27	28.48	320	320	5.1	18.45	6.45	26.2	0.38	3.1	139	
14:32	28.48	320	320	6.7	18.36	6.42	26.3	0.36	4.2	140	
14:37	28.48	320	320	8.1	18.39	6.42	26.3	0.33	5.4	140	
14:42	28.48	320	320	9.9	18.32	6.41	26.2	0.32	6.7	141	
											Sample ID: CCR-LF-2-110425
											Sample Time: 14:45
											Field Duplicate ID: DUP-2-110425
											Field Duplicate Time: 13:00

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/04/25

Sampling Data:

Well ID:	CCR-LF-3	Well Depth as Built:	35.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	12:16	Well Depth Measured:	NM ft	Initial Depth To Water:	31.35 ft	Field Parameter Device:	HORIBA
Finish Time:	13:55	Depth To Top Of Screen:	25.0 ft	Depth Of Pump Intake:	34.35 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	35.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
12:51	31.45	200	200	0.2	21.31	7.51	1.4	7.92	1.2	132	
12:56	31.47	200	200	1.8	20.93	7.44	1.34	7.58	1	132	
13:01	31.5	200	200	2.5	21.06	7.41	1.33	7.34	0.7	130	
13:06	31.5	200	200	3.1	20.81	7.39	1.35	7.53	0.8	130	
13:11	31.5	200	200	4.1	20.53	7.38	1.35	7.27	0.9	131	
13:16	31.5	200	200	5	20.24	7.36	1.36	7.24	1	133	
13:21	31.5	200	200	6	19.93	7.35	1.36	7.27	1.3	135	
											Sample ID: CCR-LF-3-110425
											Sample Time: 13:25
											7 Liters Purged

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed
CONTRACTOR	N/A	**SAMPLING DATE**	11/04/25

Sampling Data:

Well ID:	CCR-LF-4	Well Depth as Built:	55.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	15:50	Well Depth Measured:	NM ft	Initial Depth To Water:	47.8 ft	Field Parameter Device:	Horiba U-52
Finish Time:	17:20	Depth To Top Of Screen:	45.0 ft	Depth Of Pump Intake:	54.34 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	55.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
15:55	48.20	100	100	0.2	19.45	6.57	20	2.31	12.7	-19	
16:00	48.38	100	100	1	19.10	6.59	20.6	1.49	8.8	-29	
16:05	48.44	100	100	1.5	18.78	6.59	20.7	1.01	5.2	-36	
16:10	48.58	100	100	2	18.58	6.59	20.7	0.79	3	-40	
16:15	48.60	100	100	2.5	18.42	6.57	20.7	0.71	4.9	-40	
16:20	48.68	100	100	3	18.36	6.59	20.6	0.63	9.5	-42	
16:25	48.71	100	100	3.5	18.25	6.58	20.6	0.62	10.8	-42	
16:30	48.80	100	100	4	18.18	6.57	20.6	0.56	9.1	-42	
16:35	48.84	100	100	4.5	18.06	6.56	20.6	0.54	7.1	-42	
16:40	48.85	100	100	5	17.99	6.60	20.6	0.54	5.9	-44	
											Sample ID: CCR-LF-4-110425
											Sample Time: 16:40
											5 Liters Purged

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	O. Alston
CONTRACTOR	N/A	**SAMPLING DATE**	11/04/25

Sampling Data:

Well ID:	CCR-LF-5	Well Depth as Built:	30.0 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	14:10	Well Depth Measured:	NM ft	Initial Depth To Water:	22.09 ft	Field Parameter Device:	Horiba U-52
Finish Time:	15:45	Depth To Top Of Screen:	20.0 ft	Depth Of Pump Intake:	29.91 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	30.0 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
14:15	22.13	140	140	0.8	20.87	7.14	4.83	4.34	4.2	192	
14:20	22.20	140	140	1.1	20.04	7.22	4.45	1.87	5.3	187	
14:25	22.20	140	140	2	20	7.14	4.17	1.29	6.7	177	
14:30	22.20	140	140	2.5	20.23	7.13	4.11	1.17	7.1	169	
14:35	22.20	140	140	3	20.22	7.11	4.12	1.1	7.5	162	
14:40	22.20	140	140	3.4	20.31	7.1	4.19	1.06	6.6	157	
14:45	22.20	140	140	4.3	20.27	7.1	4.27	1.05	6.6	152	
14:50	22.20	140	140	5	20.25	7.11	4.43	1.03	6.3	147	
14:55	22.20	140	140	5.6	20.18	7.13	4.53	1.02	6.2	145	
15:00	22.20	140	140	6.1	20.1	7.13	4.66	1.01	6.1	142	
15:05	22.20	140	140	6.5	19.94	7.13	4.77	1.01	5.7	139	
15:10	22.20	140	140	7.1	19.87	7.12	4.89	1.00	5.5	137	
15:15	22.20	140	140	7.6	19.81	7.12	5.06	1.00	5.3	135	
15:20	22.20	140	140	8.1	19.87	7.13	5.08	0.99	4.9	134	
15:25	22.20	140	140	8.6	19.97	7.12	5.17	0.99	4.8	132	
											Sample ID: CCR-LF-5-110425
											Sample Time: 15:30

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

LOW FLOW SAMPLING FORM

PROJECT	A.B. Brown Generating Station	**H&A FILE NO.**	129420
LOCATION	Evansville, Indiana	**PROJECT MGR.**	Neal Kochis
CLIENT	Southern Indiana Gas and Electric Company	**FIELD REP.**	F. Reed / O. Alston
CONTRACTOR	N/A	**SAMPLING DATE**	11/03/25

Sampling Data:

Well ID:	CCR-LF-6	Well Depth as Built:	9.66 ft	Well Diameter:	2.0 in	Purging Device:	Bladder
Start time:	15:33	Well Depth Measured:	NM ft	Initial Depth To Water:	7.84 ft	Field Parameter Device:	Horiba U-52
Finish Time:	16:30	Depth To Top Of Screen:	4.66 ft	Depth Of Pump Intake:	8.95 ft	Tubing Present In Well:	☑ Yes ☐ No
		Depth To Bottom Of Scree	9.66 ft	Measuring Point:	Top of Casing (TOC)	Tubing Type:	Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min)	Purge Rate (ml/min)	Cumulative Purge Vol. (liters)	Temp-erature (°C)	pH	Conduct-ivity (ms/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Comments
Stabilized within →		[100 mL/min] to [500 mL/min]		-	NA	[+/- 0.1]	[+/- 3%]	[+/- 10%]	[+/- 10%]	[+/- 10]	
15:33	7.85	200	200	0.8	20.29	6.85	1.65	7.67	11.9	162	
15:38	7.86	200	200	1.8	20.06	7	1.67	7.23	12.6	144	
15:43	7.85	200	200	2.8	19.98	7.05	1.7	6.9	10.9	143	
15:48	7.85	200	200	3.6	19.85	7.03	1.72	6.51	9.9	144	
15:53	7.85	200	200	4.5	19.71	7.04	1.73	6.17	9.7	141	
15:58	7.85	200	200	5.3	19.66	7.06	1.74	5.9	9.9	144	
16:03	7.85	200	200	6.2	19.63	7.04	1.76	5.63	9.5	146	
16:08	7.85	200	200	7.2	19.51	7.05	1.76	5.34	9.7	146	
16:13	7.86	200	200	8.0	19.46	7.06	1.77	5.08	8.1	148	
											Sample ID: CCR-LF-6-110425
											Sample Time: 16:15
											8.85 Liters Purged

well volume = 3.14 (PI) x radius² x height of water column. 2 in well = 0.163 gal/ft, 3 in = 0.367 gal/ft 4 in = 0.653 gal/ft, 6 in = 1.469 gal/ft, 1 cu. ft. = 7.48 gal, 1 gal = 3.785 L, 1L = 0.264 gal, 0.5L/min = 0.132 gal/min

APPENDIX C
Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Todd Plating
Haley & Aldrich, Inc.
400 Augusta Street
Suite 100
Greenville, South Carolina 29601

Generated 6/13/2025 5:48:18 PM

JOB DESCRIPTION

AB Brown Generating Station
Landfill

JOB NUMBER

180-190227-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

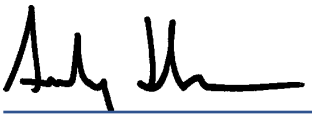
Job Notes

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.

PA Lab ID: 02-00416

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 Pittsburgh Project Manager.

Authorization



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Authorized for release by
Andy Johnson, Senior Project Manager
Andy.Johnson@et.eurofinsus.com
(615)818-9567

Table of Contents

Job Narrative
180-190227-1

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 5/9/2025 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.1°C, 1.7°C, 1.9°C, 2.1°C and 2.8°C.

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.

Job ID: 180-190227-2 Eurofins Pittsburgh

Job Narrative
180-190227-2

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 5/9/2025 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.1°C, 1.7°C, 1.9°C, 2.1°C and 2.8°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: DUP-2-050825 (180-190227-3), CCR-LF-2-050825 (180-190227-4), CCR-LF-4-050825 (180-190227-5), CCR-LF-5-050825 (180-190227-6), CCR-LF-6-050825 (180-190227-7), CCR-LF-6-050825 (180-190227-7[MS]) and CCR-LF-6-050825 (180-190227-7[MSD]). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: CCR-LF-3-050725 (180-190227-2). 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.

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.

Qualifiers

HPLC/IC

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.

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
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

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

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00690	06-28-25
California	State	2891	04-30-24 *
Connecticut	State	PH-0820	09-30-26
Florida	NELAP	E871008	06-30-25
Georgia	State	PA 02-00416	04-30-26
Illinois	NELAP	200005	07-31-25
Kansas	NELAP	E-10350	01-31-26
Kentucky (UST)	State	162013	04-30-26
Kentucky (WW)	State	KY98043	12-31-25
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-25
Maine	State	PA00164	03-06-26
Minnesota	NELAP	042-999-482	12-31-25
New Hampshire	NELAP	2030	04-04-26
New Jersey	NELAP	PA005	06-30-25
New York	NELAP	11182	03-31-26
North Carolina (WW/SW)	State	434	12-31-25
North Dakota	State	R-227	04-30-24 *
Oregon	NELAP	PA-2151	02-06-26
Pennsylvania	NELAP	02-00416	04-30-26
Rhode Island	State	LAO00375	12-30-25
South Carolina	State	89014	04-30-25 *
Texas	NELAP	T104704528	03-31-26
US Fish & Wildlife	US Federal Programs	A21930	04-30-26
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462024-14	05-31-25
Virginia	NELAP	460189	09-14-25
West Virginia DEP	State	142	01-31-26
Wisconsin	State	998027800	08-31-25

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
Connecticut	State	PH-0806	12-31-26
Georgia	State	4062	02-27-26
Illinois	NELAP	200004	08-31-25
Iowa	State	421	06-01-25
Kansas	NELAP	E-10336	01-31-26
Kentucky (UST)	State	112225	02-28-26
Kentucky (WW)	State	KY98016	12-31-25
Minnesota	NELAP	039-999-348	12-31-25
New Hampshire	NELAP	225024	09-30-25
New Jersey	NELAP	OH001	07-03-25
New York	NELAP	10975	04-01-26
North Dakota	State	R-244	02-27-26
Ohio	State	8303	11-04-25
Ohio VAP	State	ORELAP 4062	02-28-26
Oregon	NELAP	4062	02-27-26
Pennsylvania	NELAP	68-00340	08-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Laboratory: Eurofins Cleveland (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
Texas	NELAP	T104704517-22-19	08-31-25
US Fish & Wildlife	US Federal Programs	A26406	02-28-26
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-25
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-25

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-25
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-25
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-25
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	06-30-25
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-25
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-25
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-25
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-25
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-25
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-25
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-25
Oregon	NELAP	PA200001	09-11-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: Haley & Aldrich, Inc.
Job ID: 180-190227-1
Project/Site: AB Brown Generating Station
SDG: Landfill

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (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	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-25
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-25
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-25
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

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	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	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	03-31-26
North Carolina (DW)	State	29700	08-02-25
North Dakota	State	R-207	06-30-25
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

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	02-28-26
South Carolina	State	85002	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-23-138-94730	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

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-190227-1	CCR-LF-1-050725	Water	05/07/25 14:45	05/09/25 09:00
180-190227-2	CCR-LF-3-050725	Water	05/07/25 15:10	05/09/25 09:00
180-190227-3	DUP-2-050825	Water	05/08/25 12:00	05/09/25 09:00
180-190227-4	CCR-LF-2-050825	Water	05/08/25 08:50	05/09/25 09:00
180-190227-5	CCR-LF-4-050825	Water	05/08/25 09:00	05/09/25 09:00
180-190227-6	CCR-LF-5-050825	Water	05/08/25 10:35	05/09/25 09:00
180-190227-7	CCR-LF-6-050825	Water	05/08/25 11:50	05/09/25 09:00

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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 SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Client Sample ID: CCR-LF-1-050725

Lab Sample ID: 180-190227-1

Date Collected: 05/07/25 14:45

Matrix: Water

Date Received: 05/09/25 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	496132	05/19/25 15:22	ERP	EET PIT
	Instrument ID: INUVION									
Total/NA	Analysis	EPA 9056A		20	1 mL	1 mL	496243	05/20/25 14:01	ERP	EET PIT
	Instrument ID: INUVION									
Total Recoverable	Prep	3005A			50 mL	50 mL	643908	05/19/25 06:52	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		1			646162	05/19/25 16:15	T8CQ	ELLE
	Instrument ID: T74 - 23745									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 23:10	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644036	05/21/25 08:35	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			647358	05/21/25 18:15	X3ZX	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 15:59	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	495784	05/14/25 14:00	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1000.22 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:41	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.22 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721791	06/11/25 14:16	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-3-050725

Lab Sample ID: 180-190227-2

Date Collected: 05/07/25 15:10

Matrix: Water

Date Received: 05/09/25 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	496132	05/19/25 15:48	ERP	EET PIT
	Instrument ID: INUVION									
Total/NA	Analysis	EPA 9056A		50	1 mL	1 mL	496426	05/22/25 20:55	ERP	EET PIT
	Instrument ID: INUVION									
Total Recoverable	Prep	3005A			50 mL	50 mL	643908	05/19/25 06:52	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		1			646162	05/19/25 16:25	T8CQ	ELLE
	Instrument ID: T74 - 23745									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 23:13	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644036	05/21/25 08:35	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			647358	05/21/25 18:13	X3ZX	ELLE
	Instrument ID: M10 – 31820									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-3-050725

Date Collected: 05/07/25 15:10
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 16:02	BAB	EET PIT
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	495784	05/14/25 14:00	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			989.90 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:41	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			989.90 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721799	06/11/25 14:19	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-2-050825

Date Collected: 05/08/25 12:00
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	496133	05/19/25 20:50	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		100	1 mL	1 mL	496133	05/19/25 21:08	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	643917	05/15/25 06:58	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		5			644817	05/15/25 18:42	T8CQ	ELLE
	Instrument ID: T75 - 27278									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 23:16	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644035	05/16/25 09:10	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			645253	05/16/25 17:32	HNC4	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 16:04	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1003.44 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:41	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1003.44 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721799	06/11/25 14:19	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-2-050825

Lab Sample ID: 180-190227-4

Date Collected: 05/08/25 08:50
Matrix: Water
Date Received: 05/09/25 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	496133	05/19/25 21:27	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		100	1 mL	1 mL	496133	05/19/25 21:45	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	643908	05/19/25 06:52	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		5			646162	05/19/25 16:28	T8CQ	ELLE
	Instrument ID: T74 - 23745									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 23:18	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644035	05/16/25 09:10	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			645253	05/16/25 17:30	HNC4	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 16:07	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1000.24 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:42	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1000.24 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721799	06/11/25 14:19	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-4-050825

Lab Sample ID: 180-190227-5

Date Collected: 05/08/25 09:00
Matrix: Water
Date Received: 05/09/25 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	496133	05/19/25 22:04	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		100	1 mL	1 mL	496133	05/19/25 22:22	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	643902	05/19/25 06:42	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		1			646162	05/19/25 17:06	T8CQ	ELLE
	Instrument ID: T74 - 23745									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 23:21	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644035	05/16/25 09:10	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			645253	05/16/25 17:36	HNC4	ELLE
	Instrument ID: M10 – 31820									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-4-050825

Date Collected: 05/08/25 09:00
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 16:17	BAB	EET PIT
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1002.43 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:42	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			1002.43 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721799	06/11/25 14:19	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-5-050825

Date Collected: 05/08/25 10:35
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	496133	05/19/25 22:41	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		25	1 mL	1 mL	496133	05/19/25 22:59	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	643908	05/19/25 06:52	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		1			646162	05/19/25 16:21	T8CQ	ELLE
	Instrument ID: T74 - 23745									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 23:24	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644035	05/16/25 09:10	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			645253	05/16/25 17:47	HNC4	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 16:20	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			991.13 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:42	SWS	EET SL
	Instrument ID: GFPCRED									
Total/NA	Prep	PrecSep_0			991.13 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721799	06/11/25 14:19	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-6-050825

Date Collected: 05/08/25 11:50
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	496133	05/20/25 00:32	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	496133	05/20/25 00:50	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	644779	05/15/25 21:00	UAMX	ELLE
Total Recoverable	Analysis	EPA 6010D		1			645042	05/16/25 06:17	MT26	ELLE
	Instrument ID: T75 - 27278									
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			656675	05/19/25 22:37	S4FJ	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20.0 mL	644035	05/16/25 09:10	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A		1			645253	05/16/25 17:11	HNC4	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 16:12	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	495783	05/14/25 13:52	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			992.45 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721799	06/11/25 19:45	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			992.45 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721799	06/11/25 14:19	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Analysis	Ra226_Ra228		1			722322	06/13/25 11:31	CAH	EET SL
	Instrument ID: NOEQUIP									

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: EET CLE
- Batch Type: Prep
  - BN = Benjamin Norman
- Batch Type: Analysis
  - S4FJ = Katherine Wise

Lab: EET PIT
- Batch Type: Analysis
  - BAB = Brooke Batyi
  - ERP = Evan Papak
  - SNR = Sabra Richart

Lab: EET SL
- Batch Type: Prep
  - OGC = Olivia Carr
- Batch Type: Analysis
  - CAH = Chris Hough
  - SWS = Seth Stubblefield

Lab: ELLE
- Batch Type: Prep
  - UAMX = Annamaria Kuhns
  - UJL8 = James Mertz
  - X3ZX = Skyler Ruf
- Batch Type: Analysis
  - HNC4 = Mindy Schantzenbach
  - MT26 = Jason Knight
  - T8CQ = Sera Bargo
  - X3ZX = Skyler Ruf

Client Sample ID: CCR-LF-1-050725

Date Collected: 05/07/25 14:45
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-1

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17**		1.0	0.71	mg/L			05/19/25 15:22	1
Fluoride	ND		0.10	0.026	mg/L			05/19/25 15:22	1
Sulfate	**1100**		20	15	mg/L			05/20/25 14:01	20

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.044**	**J**	0.050	0.012	mg/L		05/19/25 06:52	05/19/25 16:15	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 23:10	1
Arsenic	ND		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:10	1
Barium	**0.031**		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:10	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:10	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:10	1
Calcium	**290**		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:10	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:10	1
Cobalt	ND		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:10	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:10	1
Lithium	ND		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:10	1
Molybdenum	ND		0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:10	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:10	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:10	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/21/25 08:35	05/21/25 18:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1900**		10	10	mg/L			05/14/25 14:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.8**	**HF**	0.1	0.1	SU			05/13/25 15:59	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.294	U	0.234	0.235	1.00	0.342	pCi/L	05/19/25 08:09	06/11/25 19:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:41*	*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	0.255	U	0.346	0.347	1.00	0.580	pCi/L	05/19/25 08:13	06/11/25 14:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.8*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:16*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-1-050725
Date Collected: 05/07/25 14:45
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-1
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*72.5*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:16*	*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	0.549	U	0.418	0.419	5.00	0.580	pCi/L		06/13/25 11:31	1

Client Sample ID: CCR-LF-3-050725

Date Collected: 05/07/25 15:10
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-2

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11**		1.0	0.71	mg/L			05/19/25 15:48	1
Fluoride	**0.27**		0.10	0.026	mg/L			05/19/25 15:48	1
Sulfate	**700**		50	38	mg/L			05/22/25 20:55	50

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.22**		0.050	0.012	mg/L		05/19/25 06:52	05/19/25 16:25	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 23:13	1
Arsenic	ND		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:13	1
Barium	**0.019**		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:13	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:13	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:13	1
Calcium	**190**		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:13	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:13	1
Cobalt	ND		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:13	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:13	1
Lithium	ND		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:13	1
Molybdenum	**0.0037**	**J**	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:13	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:13	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:13	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/21/25 08:35	05/21/25 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1500**		10	10	mg/L			05/14/25 14:00	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.3**	**HF**	0.1	0.1	SU			05/13/25 16:02	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0253	U	0.159	0.159	1.00	0.318	pCi/L	05/19/25 08:09	06/11/25 19:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:41*	*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	0.495	U	0.375	0.378	1.00	0.573	pCi/L	05/19/25 08:13	06/11/25 14:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-3-050725
Date Collected: 05/07/25 15:10
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-2
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*77.4*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*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	0.520	U	0.407	0.410	5.00	0.573	pCi/L		06/13/25 11:31	1

Client Sample ID: DUP-2-050825

Date Collected: 05/08/25 12:00
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-3

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	390		10	7.1	mg/L			05/19/25 20:50	10
Fluoride	ND		1.0	0.26	mg/L			05/19/25 20:50	10
Sulfate	16000		100	76	mg/L			05/19/25 21:08	100

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.3		0.25	0.060	mg/L		05/15/25 06:58	05/15/25 18:42	5

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 23:16	1
Arsenic	0.0011	J	0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:16	1
Barium	0.011		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:16	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:16	1
Cadmium	0.0048		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:16	1
Calcium	390		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:16	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:16	1
Cobalt	0.011		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:16	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:16	1
Lithium	0.015		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:16	1
Molybdenum	0.0027	J	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:16	1
Selenium	0.0029	J	0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:16	1
Thallium	0.00063	J	0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:16	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/16/25 09:10	05/16/25 17:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	23000		200	200	mg/L			05/14/25 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	6.5	HF	0.1	0.1	SU			05/13/25 16:04	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.385		0.252	0.255	1.00	0.341	pCi/L	05/19/25 08:09	06/11/25 19:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:41*	*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	3.18		0.658	0.720	1.00	0.579	pCi/L	05/19/25 08:13	06/11/25 14:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: DUP-2-050825
Date Collected: 05/08/25 12:00
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-3
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	75.1		30 - 110	05/19/25 08:13	06/11/25 14:19	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	3.56		0.705	0.764	5.00	0.579	pCi/L		06/13/25 11:31	1

Client Sample ID: CCR-LF-2-050825

Date Collected: 05/08/25 08:50
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-4

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**390**		10	7.1	mg/L			05/19/25 21:27	10
Fluoride	ND		1.0	0.26	mg/L			05/19/25 21:27	10
Sulfate	**16000**		100	76	mg/L			05/19/25 21:45	100

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**5.2**		0.25	0.060	mg/L		05/19/25 06:52	05/19/25 16:28	5

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 23:18	1
Arsenic	**0.0010**	**J**	0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:18	1
Barium	**0.011**		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:18	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:18	1
Cadmium	**0.0048**		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:18	1
Calcium	**380**		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:18	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:18	1
Cobalt	**0.011**		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:18	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:18	1
Lithium	**0.016**		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:18	1
Molybdenum	**0.0025**	**J**	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:18	1
Selenium	**0.0021**	**J**	0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:18	1
Thallium	**0.00060**	**J**	0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:18	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/16/25 09:10	05/16/25 17:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**23000**		200	200	mg/L			05/14/25 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.6**	**HF**	0.1	0.1	SU			05/13/25 16:07	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.653**		0.295	0.301	1.00	0.339	pCi/L	05/19/25 08:09	06/11/25 19:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:42*	*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	**3.36**		0.645	0.715	1.00	0.586	pCi/L	05/19/25 08:13	06/11/25 14:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-2-050825
Date Collected: 05/08/25 08:50
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-4
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	81.1		30 - 110	05/19/25 08:13	06/11/25 14:19	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	4.01		0.709	0.776	5.00	0.586	pCi/L		06/13/25 11:31	1

Client Sample ID: CCR-LF-4-050825

Date Collected: 05/08/25 09:00
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-5

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		10	7.1	mg/L			05/19/25 22:04	10
Fluoride	ND		1.0	0.26	mg/L			05/19/25 22:04	10
Sulfate	**11000**		100	76	mg/L			05/19/25 22:22	100

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.51**		0.050	0.012	mg/L		05/19/25 06:42	05/19/25 17:06	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 23:21	1
Arsenic	**0.020**		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:21	1
Barium	**0.0097**		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:21	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:21	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:21	1
Calcium	**380**		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:21	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:21	1
Cobalt	**0.0012**		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:21	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:21	1
Lithium	**0.083**		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:21	1
Molybdenum	**0.028**		0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:21	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:21	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:21	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/16/25 09:10	05/16/25 17:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**16000**		100	100	mg/L			05/14/25 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.7**	**HF**	0.1	0.1	SU			05/13/25 16:17	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**3.48**		0.568	0.649	1.00	0.264	pCi/L	05/19/25 08:09	06/11/25 19:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:42*	*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	**1.86**		0.513	0.541	1.00	0.564	pCi/L	05/19/25 08:13	06/11/25 14:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.8*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*1*

Client Sample ID: CCR-LF-4-050825

Date Collected: 05/08/25 09:00
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-5

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	78.5		30 - 110	05/19/25 08:13	06/11/25 14:19	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	5.34		0.765	0.845	5.00	0.564	pCi/L		06/13/25 11:31	1

Client Sample ID: CCR-LF-5-050825

Date Collected: 05/08/25 10:35
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-6

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		2.5	1.8	mg/L			05/19/25 22:41	2.5
Fluoride	**0.16**	**J**	0.25	0.065	mg/L			05/19/25 22:41	2.5
Sulfate	**2300**		25	19	mg/L			05/19/25 22:59	25

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**1.0**		0.050	0.012	mg/L		05/19/25 06:52	05/19/25 16:21	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 23:24	1
Arsenic	ND		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:24	1
Barium	**0.021**		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:24	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:24	1
Cadmium	**0.00027**	**J**	0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:24	1
Calcium	**420**		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:24	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:24	1
Cobalt	**0.00011**	**J**	0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:24	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:24	1
Lithium	**0.016**		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:24	1
Molybdenum	ND		0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:24	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:24	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:24	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00016**	**J**	0.00020	0.000087	mg/L		05/16/25 09:10	05/16/25 17:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**4300**		40	40	mg/L			05/14/25 13:10	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.9**	**HF**	0.1	0.1	SU			05/13/25 16:20	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0437	U	0.151	0.151	1.00	0.295	pCi/L	05/19/25 08:09	06/11/25 19:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:42*	*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	0.173	U	0.312	0.313	1.00	0.540	pCi/L	05/19/25 08:13	06/11/25 14:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*1*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Client Sample ID: CCR-LF-5-050825
Date Collected: 05/08/25 10:35
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-6
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*77.0*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*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	0.217	U	0.347	0.348	5.00	0.540	pCi/L		06/13/25 11:31	1

Client Sample ID: CCR-LF-6-050825

Date Collected: 05/08/25 11:50
Date Received: 05/09/25 09:00

Lab Sample ID: 180-190227-7

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41**		1.0	0.71	mg/L			05/20/25 00:32	1
Fluoride	**0.41**		0.10	0.026	mg/L			05/20/25 00:32	1
Sulfate	**1100**		10	7.6	mg/L			05/20/25 00:50	10

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.52**		0.050	0.012	mg/L		05/15/25 21:00	05/16/25 06:17	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 22:37	1
Arsenic	ND		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 22:37	1
Barium	**0.023**		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 22:37	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 22:37	1
Cadmium	**0.00013**	**J**	0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 22:37	1
Calcium	**350**		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 22:37	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 22:37	1
Cobalt	**0.00014**	**J**	0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 22:37	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 22:37	1
Lithium	**0.013**		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 22:37	1
Molybdenum	**0.0022**	**J**	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 22:37	1
Selenium	**0.0014**	**J**	0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 22:37	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 22:37	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/16/25 09:10	05/16/25 17:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1800**		10	10	mg/L			05/14/25 13:52	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.1**	**HF**	0.1	0.1	SU			05/13/25 16:12	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0935	U	0.160	0.160	1.00	0.284	pCi/L	05/19/25 08:09	06/11/25 19:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:45*	*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	0.0726	U	0.347	0.347	1.00	0.626	pCi/L	05/19/25 08:13	06/11/25 14:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*1*

Client Sample ID: CCR-LF-6-050825
Lab Sample ID: 180-190227-7

Date Collected: 05/08/25 11:50
Matrix: Water
Date Received: 05/09/25 09:00

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*79.6*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:19*	*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	0.166	U	0.382	0.382	5.00	0.626	pCi/L		06/13/25 11:31	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-496132/13
Matrix: Water
Analysis Batch: 496132

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	0.71	mg/L			05/19/25 10:08	1
Fluoride	ND		0.10	0.026	mg/L			05/19/25 10:08	1
Sulfate	ND		1.0	0.76	mg/L			05/19/25 10:08	1

Lab Sample ID: LCS 180-496132/14
Matrix: Water
Analysis Batch: 496132

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	53.8		mg/L		108	80 - 120
Fluoride	2.50	2.45		mg/L		98	80 - 120
Sulfate	50.0	50.4		mg/L		101	80 - 120

Lab Sample ID: MB 180-496133/22
Matrix: Water
Analysis Batch: 496133

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	0.71	mg/L			05/19/25 16:44	1
Fluoride	ND		0.10	0.026	mg/L			05/19/25 16:44	1
Sulfate	ND		1.0	0.76	mg/L			05/19/25 16:44	1

Lab Sample ID: LCS 180-496133/23
Matrix: Water
Analysis Batch: 496133

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	48.9		mg/L		98	80 - 120
Fluoride	2.50	2.51		mg/L		100	80 - 120
Sulfate	50.0	49.2		mg/L		98	80 - 120

Lab Sample ID: 180-190227-7 MS
Matrix: Water
Analysis Batch: 496133

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	43		500	537		mg/L		99	80 - 120
Fluoride	ND		25.0	23.8		mg/L		95	80 - 120
Sulfate	1100		500	1500		mg/L		88	80 - 120

Lab Sample ID: 180-190227-7 MSD
Matrix: Water
Analysis Batch: 496133

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	43		500	535		mg/L		98	80 - 120	0	15
Fluoride	ND		25.0	25.8		mg/L		103	80 - 120	8	15
Sulfate	1100		500	1490		mg/L		86	80 - 120	1	15

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-496243/6
Matrix: Water
Analysis Batch: 496243

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	0.71	mg/L			05/20/25 10:34	1
Fluoride	ND		0.10	0.026	mg/L			05/20/25 10:34	1
Sulfate	ND		1.0	0.76	mg/L			05/20/25 10:34	1

Lab Sample ID: LCS 180-496243/7
Matrix: Water
Analysis Batch: 496243

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	53.8		mg/L		108	80 - 120
Fluoride	2.50	2.49		mg/L		99	80 - 120
Sulfate	50.0	50.1		mg/L		100	80 - 120

Lab Sample ID: MB 180-496426/31
Matrix: Water
Analysis Batch: 496426

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	0.71	mg/L			05/22/25 19:06	1
Fluoride	ND		0.10	0.026	mg/L			05/22/25 19:06	1
Sulfate	ND		1.0	0.76	mg/L			05/22/25 19:06	1

Lab Sample ID: LCS 180-496426/32
Matrix: Water
Analysis Batch: 496426

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	52.7		mg/L		105	80 - 120
Fluoride	2.50	2.44		mg/L		97	80 - 120
Sulfate	50.0	46.5		mg/L		93	80 - 120

Method: EPA 6010D - Metals (ICP)

Lab Sample ID: MB 410-643902/1-A
Matrix: Water
Analysis Batch: 646162

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 643902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		05/19/25 06:42	05/19/25 16:54	1

Lab Sample ID: LCS 410-643902/2-A
Matrix: Water
Analysis Batch: 646162

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 643902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.505		mg/L		101	83 - 119

Method: EPA 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 410-643908/1-A
Matrix: Water
Analysis Batch: 646162

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 643908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		05/19/25 06:52	05/19/25 16:05	1

Lab Sample ID: LCS 410-643908/2-A
Matrix: Water
Analysis Batch: 646162

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 643908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.517		mg/L		103	83 - 119

Lab Sample ID: MB 410-643917/1-A
Matrix: Water
Analysis Batch: 644817

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 643917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		05/15/25 06:58	05/15/25 17:47	1

Lab Sample ID: LCS 410-643917/2-A
Matrix: Water
Analysis Batch: 644817

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 643917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.492		mg/L		98	83 - 119

Lab Sample ID: MB 410-644779/1-A
Matrix: Water
Analysis Batch: 645042

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 644779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		05/15/25 21:00	05/16/25 06:07	1

Lab Sample ID: LCS 410-644779/2-A
Matrix: Water
Analysis Batch: 645042

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 644779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.475		mg/L		95	83 - 119

Lab Sample ID: LCSD 410-644779/3-A
Matrix: Water
Analysis Batch: 645042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 644779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.500	0.472		mg/L		94	83 - 119	0	20

Lab Sample ID: 180-190227-7 MS
Matrix: Water
Analysis Batch: 645042

Client Sample ID: CCR-LF-6-050825
Prep Type: Total Recoverable
Prep Batch: 644779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.52		0.500	1.00		mg/L		95	75 - 125

Method: EPA 6010D - Metals (ICP)

Lab Sample ID: 180-190227-7 MSD
Matrix: Water
Analysis Batch: 645042

Client Sample ID: CCR-LF-6-050825
Prep Type: Total Recoverable
Prep Batch: 644779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.52		0.500	1.00		mg/L		96	75 - 125	0	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-656349/1-A
Matrix: Water
Analysis Batch: 656675

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 656349

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		05/16/25 14:00	05/19/25 22:26	1
Arsenic	ND		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 22:26	1
Barium	ND		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 22:26	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 22:26	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 22:26	1
Calcium	ND		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 22:26	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 22:26	1
Cobalt	ND		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 22:26	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 22:26	1
Lithium	ND		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 22:26	1
Molybdenum	ND		0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 22:26	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 22:26	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 22:26	1

Lab Sample ID: LCS 240-656349/2-A
Matrix: Water
Analysis Batch: 656675

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 656349

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.100		mg/L		100	80 - 120
Arsenic	1.00	0.993		mg/L		99	80 - 120
Barium	1.00	0.997		mg/L		100	80 - 120
Beryllium	0.500	0.486		mg/L		97	80 - 120
Cadmium	0.500	0.491		mg/L		98	80 - 120
Calcium	25.0	25.8		mg/L		103	80 - 120
Chromium	0.500	0.513		mg/L		103	80 - 120
Cobalt	0.500	0.517		mg/L		103	80 - 120
Lead	0.500	0.539		mg/L		108	80 - 120
Lithium	0.500	0.525		mg/L		105	80 - 120
Molybdenum	0.500	0.503		mg/L		101	80 - 120
Selenium	1.00	0.983		mg/L		98	80 - 120
Thallium	1.00	1.15		mg/L		115	80 - 120

Lab Sample ID: 180-190227-7 MS
Matrix: Water
Analysis Batch: 656675

Client Sample ID: CCR-LF-6-050825
Prep Type: Total Recoverable
Prep Batch: 656349

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		0.100	0.106		mg/L		106	80 - 120
Arsenic	ND		1.00	1.03		mg/L		103	80 - 120

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-190227-7 MS
Matrix: Water
Analysis Batch: 656675

Client Sample ID: CCR-LF-6-050825
Prep Type: Total Recoverable
Prep Batch: 656349

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.023		1.00	1.05		mg/L		103	80 - 120
Beryllium	ND		0.500	0.486		mg/L		97	80 - 120
Cadmium	0.00013	J	0.500	0.495		mg/L		99	80 - 120
Calcium	350		25.0	362	4	mg/L		59	80 - 120
Chromium	ND		0.500	0.518		mg/L		104	80 - 120
Cobalt	0.00014	J	0.500	0.526		mg/L		105	80 - 120
Lead	ND		0.500	0.552		mg/L		110	80 - 120
Lithium	0.013		0.500	0.537		mg/L		105	80 - 120
Molybdenum	0.0022	J	0.500	0.525		mg/L		105	80 - 120
Selenium	0.0014	J	1.00	0.983		mg/L		98	80 - 120
Thallium	ND		1.00	1.17		mg/L		117	80 - 120

Lab Sample ID: 180-190227-7 MSD
Matrix: Water
Analysis Batch: 656675

Client Sample ID: CCR-LF-6-050825
Prep Type: Total Recoverable
Prep Batch: 656349

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.104		mg/L		104	80 - 120	2	20
Arsenic	ND		1.00	1.02		mg/L		102	80 - 120	0	20
Barium	0.023		1.00	1.04		mg/L		102	80 - 120	1	20
Beryllium	ND		0.500	0.481		mg/L		96	80 - 120	1	20
Cadmium	0.00013	J	0.500	0.493		mg/L		99	80 - 120	0	20
Calcium	350		25.0	363	4	mg/L		60	80 - 120	0	20
Chromium	ND		0.500	0.520		mg/L		104	80 - 120	0	20
Cobalt	0.00014	J	0.500	0.501		mg/L		100	80 - 120	5	20
Lead	ND		0.500	0.551		mg/L		110	80 - 120	0	20
Lithium	0.013		0.500	0.547		mg/L		107	80 - 120	2	20
Molybdenum	0.0022	J	0.500	0.526		mg/L		105	80 - 120	0	20
Selenium	0.0014	J	1.00	0.978		mg/L		98	80 - 120	1	20
Thallium	ND		1.00	1.18		mg/L		118	80 - 120	1	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-644035/1-A
Matrix: Water
Analysis Batch: 645253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644035

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/16/25 09:10	05/16/25 17:07	1

Lab Sample ID: LCS 410-644035/2-A
Matrix: Water
Analysis Batch: 645253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.00104		mg/L		104	80 - 118

Method: EPA 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 180-190227-7 MS
Matrix: Water
Analysis Batch: 645253

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA
Prep Batch: 644035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00100	0.00111		mg/L		111	80 - 120

Lab Sample ID: 180-190227-7 MSD
Matrix: Water
Analysis Batch: 645253

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA
Prep Batch: 644035

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.00110		mg/L		110	80 - 120	0	20

Lab Sample ID: MB 410-644036/1-A
Matrix: Water
Analysis Batch: 647358

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		05/21/25 08:35	05/21/25 17:58	1

Lab Sample ID: LCS 410-644036/2-A
Matrix: Water
Analysis Batch: 647358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644036

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.00110		mg/L		110	80 - 118

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-495774/40
Matrix: Water
Analysis Batch: 495774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-495782/1
Matrix: Water
Analysis Batch: 495782

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	10	mg/L			05/14/25 13:10	1

Lab Sample ID: LCS 180-495782/2
Matrix: Water
Analysis Batch: 495782

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	420	470		mg/L		112	85 - 115

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 180-495783/1
Matrix: Water
Analysis Batch: 495783

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	10	mg/L			05/14/25 13:52	1

Lab Sample ID: LCS 180-495783/2
Matrix: Water
Analysis Batch: 495783

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			420	358		mg/L		85	85 - 115		

Lab Sample ID: MB 180-495784/1
Matrix: Water
Analysis Batch: 495784

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	10	mg/L			05/14/25 14:00	1

Lab Sample ID: LCS 180-495784/2
Matrix: Water
Analysis Batch: 495784

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			420	390		mg/L		93	85 - 115		

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-718074/1-A
Matrix: Water
Analysis Batch: 721791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718074

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2023	U	0.192	0.193	1.00	0.295	pCi/L	05/19/25 08:09	06/11/25 19:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*30 - 110*	*05/19/25 08:09*	*06/11/25 19:39*	*1*

Lab Sample ID: LCS 160-718074/2-A
Matrix: Water
Analysis Batch: 721791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718074

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.129		1.12	1.00	0.298	pCi/L	85	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 180-190227-7 DU
Matrix: Water
Analysis Batch: 721799

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA
Prep Batch: 718074

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.0935	U		0.3761		0.240	1.00	0.311	pCi/L			0.71	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.1*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-718078/1-A
Matrix: Water
Analysis Batch: 721791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 718078

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2081	U	0.275	0.276	1.00	0.460	pCi/L	05/19/25 08:13	06/11/25 14:15	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.0*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:15*	*1*
Y Carrier	*80.4*		*30 - 110*	*05/19/25 08:13*	*06/11/25 14:15*	*1*

Lab Sample ID: LCS 160-718078/2-A
Matrix: Water
Analysis Batch: 721791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 718078

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			9.36	10.48		1.39	1.00	0.551	pCi/L	112	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*30 - 110*
Y Carrier	*79.6*		*30 - 110*

Lab Sample ID: 180-190227-7 DU
Matrix: Water
Analysis Batch: 721799

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA
Prep Batch: 718078

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.0726	U		0.8242		0.451	1.00	0.630	pCi/L			0.94	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.1*		*30 - 110*
Y Carrier	*74.0*		*30 - 110*

Client: Haley & Aldrich, Inc.
Project/Site: AB Brown Generating Station

Job ID: 180-190227-1
SDG: Landfill

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 180-190227-7 DU
Matrix: Water
Analysis Batch: 722322

Client Sample ID: CCR-LF-6-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	0.166	U		1.200		0.511	5.00	0.630	pCi/L			1.16	

HPLC/IC

Analysis Batch: 496132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	EPA 9056A	
180-190227-2	CCR-LF-3-050725	Total/NA	Water	EPA 9056A	
MB 180-496132/13	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-496132/14	Lab Control Sample	Total/NA	Water	EPA 9056A	

Analysis Batch: 496133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-3	DUP-2-050825	Total/NA	Water	EPA 9056A	
180-190227-3	DUP-2-050825	Total/NA	Water	EPA 9056A	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	EPA 9056A	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	EPA 9056A	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	EPA 9056A	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	EPA 9056A	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	EPA 9056A	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	EPA 9056A	
180-190227-7	CCR-LF-6-050825	Total/NA	Water	EPA 9056A	
180-190227-7	CCR-LF-6-050825	Total/NA	Water	EPA 9056A	
MB 180-496133/22	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-496133/23	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-190227-7 MS	CCR-LF-6-050825	Total/NA	Water	EPA 9056A	
180-190227-7 MSD	CCR-LF-6-050825	Total/NA	Water	EPA 9056A	

Analysis Batch: 496243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	EPA 9056A	
MB 180-496243/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-496243/7	Lab Control Sample	Total/NA	Water	EPA 9056A	

Analysis Batch: 496426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-2	CCR-LF-3-050725	Total/NA	Water	EPA 9056A	
MB 180-496426/31	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-496426/32	Lab Control Sample	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 643902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-5	CCR-LF-4-050825	Total Recoverable	Water	3005A	
MB 410-643902/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-643902/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 643908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total Recoverable	Water	3005A	
180-190227-2	CCR-LF-3-050725	Total Recoverable	Water	3005A	
180-190227-4	CCR-LF-2-050825	Total Recoverable	Water	3005A	
180-190227-6	CCR-LF-5-050825	Total Recoverable	Water	3005A	
MB 410-643908/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-643908/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Prep Batch: 643917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-3	DUP-2-050825	Total Recoverable	Water	3005A	
MB 410-643917/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-643917/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 644035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-3	DUP-2-050825	Total/NA	Water	7470A	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	7470A	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	7470A	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	7470A	
180-190227-7	CCR-LF-6-050825	Total/NA	Water	7470A	
MB 410-644035/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-644035/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-190227-7 MS	CCR-LF-6-050825	Total/NA	Water	7470A	
180-190227-7 MSD	CCR-LF-6-050825	Total/NA	Water	7470A	

Prep Batch: 644036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	7470A	
180-190227-2	CCR-LF-3-050725	Total/NA	Water	7470A	
MB 410-644036/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-644036/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 644779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-7	CCR-LF-6-050825	Total Recoverable	Water	3005A	
MB 410-644779/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-644779/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 410-644779/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
180-190227-7 MS	CCR-LF-6-050825	Total Recoverable	Water	3005A	
180-190227-7 MSD	CCR-LF-6-050825	Total Recoverable	Water	3005A	

Analysis Batch: 644817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-3	DUP-2-050825	Total Recoverable	Water	EPA 6010D	643917
MB 410-643917/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	643917
LCS 410-643917/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	643917

Analysis Batch: 645042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-7	CCR-LF-6-050825	Total Recoverable	Water	EPA 6010D	644779
MB 410-644779/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	644779
LCS 410-644779/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	644779
LCSD 410-644779/3-A	Lab Control Sample Dup	Total Recoverable	Water	EPA 6010D	644779
180-190227-7 MS	CCR-LF-6-050825	Total Recoverable	Water	EPA 6010D	644779
180-190227-7 MSD	CCR-LF-6-050825	Total Recoverable	Water	EPA 6010D	644779

Analysis Batch: 645253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-3	DUP-2-050825	Total/NA	Water	EPA 7470A	644035
180-190227-4	CCR-LF-2-050825	Total/NA	Water	EPA 7470A	644035

Metals (Continued)

Analysis Batch: 645253 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-5	CCR-LF-4-050825	Total/NA	Water	EPA 7470A	644035
180-190227-6	CCR-LF-5-050825	Total/NA	Water	EPA 7470A	644035
180-190227-7	CCR-LF-6-050825	Total/NA	Water	EPA 7470A	644035
MB 410-644035/1-A	Method Blank	Total/NA	Water	EPA 7470A	644035
LCS 410-644035/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	644035
180-190227-7 MS	CCR-LF-6-050825	Total/NA	Water	EPA 7470A	644035
180-190227-7 MSD	CCR-LF-6-050825	Total/NA	Water	EPA 7470A	644035

Analysis Batch: 646162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total Recoverable	Water	EPA 6010D	643908
180-190227-2	CCR-LF-3-050725	Total Recoverable	Water	EPA 6010D	643908
180-190227-4	CCR-LF-2-050825	Total Recoverable	Water	EPA 6010D	643908
180-190227-5	CCR-LF-4-050825	Total Recoverable	Water	EPA 6010D	643902
180-190227-6	CCR-LF-5-050825	Total Recoverable	Water	EPA 6010D	643908
MB 410-643902/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	643902
MB 410-643908/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	643908
LCS 410-643902/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	643902
LCS 410-643908/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	643908

Analysis Batch: 647358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	EPA 7470A	644036
180-190227-2	CCR-LF-3-050725	Total/NA	Water	EPA 7470A	644036
MB 410-644036/1-A	Method Blank	Total/NA	Water	EPA 7470A	644036
LCS 410-644036/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	644036

Prep Batch: 656349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total Recoverable	Water	3005A	
180-190227-2	CCR-LF-3-050725	Total Recoverable	Water	3005A	
180-190227-3	DUP-2-050825	Total Recoverable	Water	3005A	
180-190227-4	CCR-LF-2-050825	Total Recoverable	Water	3005A	
180-190227-5	CCR-LF-4-050825	Total Recoverable	Water	3005A	
180-190227-6	CCR-LF-5-050825	Total Recoverable	Water	3005A	
180-190227-7	CCR-LF-6-050825	Total Recoverable	Water	3005A	
MB 240-656349/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-656349/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-190227-7 MS	CCR-LF-6-050825	Total Recoverable	Water	3005A	
180-190227-7 MSD	CCR-LF-6-050825	Total Recoverable	Water	3005A	

Analysis Batch: 656675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total Recoverable	Water	EPA 6020B	656349
180-190227-2	CCR-LF-3-050725	Total Recoverable	Water	EPA 6020B	656349
180-190227-3	DUP-2-050825	Total Recoverable	Water	EPA 6020B	656349
180-190227-4	CCR-LF-2-050825	Total Recoverable	Water	EPA 6020B	656349
180-190227-5	CCR-LF-4-050825	Total Recoverable	Water	EPA 6020B	656349
180-190227-6	CCR-LF-5-050825	Total Recoverable	Water	EPA 6020B	656349
180-190227-7	CCR-LF-6-050825	Total Recoverable	Water	EPA 6020B	656349
MB 240-656349/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	656349

Metals (Continued)

Analysis Batch: 656675 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-656349/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	656349
180-190227-7 MS	CCR-LF-6-050825	Total Recoverable	Water	EPA 6020B	656349
180-190227-7 MSD	CCR-LF-6-050825	Total Recoverable	Water	EPA 6020B	656349

General Chemistry

Analysis Batch: 495774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	EPA 9040C	
180-190227-2	CCR-LF-3-050725	Total/NA	Water	EPA 9040C	
180-190227-3	DUP-2-050825	Total/NA	Water	EPA 9040C	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	EPA 9040C	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	EPA 9040C	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	EPA 9040C	
180-190227-7	CCR-LF-6-050825	Total/NA	Water	EPA 9040C	
LCS 180-495774/40	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 495782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-3	DUP-2-050825	Total/NA	Water	SM 2540C	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	SM 2540C	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	SM 2540C	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	SM 2540C	
MB 180-495782/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-495782/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 495783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-7	CCR-LF-6-050825	Total/NA	Water	SM 2540C	
MB 180-495783/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-495783/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 495784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	SM 2540C	
180-190227-2	CCR-LF-3-050725	Total/NA	Water	SM 2540C	
MB 180-495784/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-495784/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 718074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	PrecSep-21	
180-190227-2	CCR-LF-3-050725	Total/NA	Water	PrecSep-21	
180-190227-3	DUP-2-050825	Total/NA	Water	PrecSep-21	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	PrecSep-21	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	PrecSep-21	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	PrecSep-21	
180-190227-7	CCR-LF-6-050825	Total/NA	Water	PrecSep-21	
MB 160-718074/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-718074/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 718074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-7 DU	CCR-LF-6-050825	Total/NA	Water	PrecSep-21	

Prep Batch: 718078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190227-1	CCR-LF-1-050725	Total/NA	Water	PrecSep_0	
180-190227-2	CCR-LF-3-050725	Total/NA	Water	PrecSep_0	
180-190227-3	DUP-2-050825	Total/NA	Water	PrecSep_0	
180-190227-4	CCR-LF-2-050825	Total/NA	Water	PrecSep_0	
180-190227-5	CCR-LF-4-050825	Total/NA	Water	PrecSep_0	
180-190227-6	CCR-LF-5-050825	Total/NA	Water	PrecSep_0	
180-190227-7	CCR-LF-6-050825	Total/NA	Water	PrecSep_0	
MB 160-718078/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-718078/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-190227-7 DU	CCR-LF-6-050825	Total/NA	Water	PrecSep_0	

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone 412-963-7058 Fax 412-963-2468

Chain of Custody Record

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Client Information	Sampler: F. Reed + R. Elmer	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-113086-15023 4
Client Contact: Britton Hundley	Phone: 614-288-8619	E-Mail: Andy Johnson@et eurofinsus com	State of Origin: IN	Page: Page 1 of 1
Company: Haley & Aldrich, Inc	PWSID:	Analysis Requested		Job #:
Address: 400 Augusta Street Suite 100	Due Date Requested:			Preservation Codes: N - None; D - HNO3
City: Greenville	TAT Requested (days): STD			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich com	WO #: 0129420-037-001-01			
Project Name: AB Brown Generating Station(semi-annual)	Project #: 18016014			Other:
Site:	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)	9040C, 9056A_ORGFM_28D	7470A - Hg by 7470A	2540C_Calcd - TDS by 2540C	9315_Ra226 - Ra226 by 9315	9320_Ra228 - Ra228 by 9320	Ra226Ra228_GFPC - Total Ra226/Ra228	6020B - Metals by 6020B	6010D - Boron/Lithium by 6010D	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	D	D	D	D	D		
CCR-LF-1-050725	05/07/25	14:45	G	Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-3-050725	05/07/25	15:10		Water	N	N	X	X	X	X	X	X	X	X	6	
DUP-2-050825	05/08/25	12:00		Water	N	N	X	X	X	X	X	X	X	X	6	Field Duplicate
CCR-LF-2-050825		08:50		Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-4-050825		09:00		Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-5-050825		10:35		Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-6-050825		11:50			N	Y	X	X	X	X	X	X	X	X	18	MS/MSD

180-190227 Chain of Custody

Possible Hazard Identification (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
Francis Reed	05/08/25 16:00	H&A		5/9/25 900	GBA NE

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 10/10/2024


100-U
435960827622
ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH (CENTERPOINT ENERGY)
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US
SHIP DATE: 02MAY25
ACTWGT: 40.00 LB MAN
CAD: 0522321/CAFE3905
TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE
PITTSBURGH PA 15238
(412) 963-7530
REF: RETURN
COC
RMA:
Part # 159469-434 HRUBZ EXP 02/26
180-190227 Waybill
TTSBURGH PA 15238
63-7530
RETURN
FedEx
Express
RETURNS MON-SA
edEx
TRK# 0221 4359 6082 7611
FRI - 09 MAY 10:3
PRIORITY OVERNIG
NX AGCA
152
US
Uncorrected temp
Thermometer ID
2,2
26
°C
CF -0,5
Initials JB
PT-WI-SR-001 effective 7/26/13
#3941278 05/08 58CJ3/630D/C6C4
FedEx
TRK# 0221 4359 6082 7622
NX AGCA
FRI - 09 MAY 10:30A
PRIORITY OVERNIGHT
15238
PIT
PA-US
Uncorrected temp
Thermometer ID
2,4
26
°C
CF -0,5
Initials JB
PT-WI-SR-001 effective 7/26/13
#3941297-435 EXP 11/25

ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH (CENTERPOINT ENERGY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD

MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 02MAY25
ACTWGT: 40.00 LB MAN
CAD: 0522321/CAFE3905

TO SAMPLE RECEIVING DL
EUROFINS ENVIRO. TE PARTMENT
301 ALPHA DRIVE TING PITT N.E.

PITTSBURGH PA 15238
(412) 963-7530
REF: RETURN

RMA:

FedEx
Expres

FedEx
TRK# 0221 4359 6082 7699

FRI - 09 MAY 10:30
PRIORITY OVERNIGH

NX AGCA

15238
PA-US PI

Uncorrected temp 2.6 °C
Thermometer ID 26
CF -0.5 Initials JB

PT-WI-SR-001 effective 7/26/13

#3941278 05/08 5BCJ3/630D/C6C4

ORIGIN [illegible] ENERGY
LINDSEY [illegible] STATION
A.B. BROWN
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES

SHIP DATE: 28APR25
ACTWGT: 10.00 LB
CAD: 0522321/CAFE3

TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238
(412) 963-7530
REF: S180-113087

RMA:

FedEx
Expres

FedEx
TRK# 0221 4359 6082 6394

FRI - 09 MAY 10:30
PRIORITY OVERNIGH

NX AGCA

1523
PA-US PI

Uncorrected temp 1.6 °C
Thermometer ID 26
CF -0.5 Initials JB

PT-WI-SR-001 effective 7/26/13

#3941278 05/08 5BCJ3/630D/C6C4

ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH (CENTERPOINT ENERGY)
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD

MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 02MAY25
ACTWGT: 40.00 LB MAN
CAD: 0522321/CAFE3905

Part # 159469-4334 RRD52 EXP 02/26

TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238
(412) 963-7530
REF: RETURN

RMA

FedEx Express

FedEx
TRK# 0221 4359 6082 7600

FRI - 09 MAY 10:30
PRIORITY OVERNIGHT

NX AGCA

15238
PA-US PIT

Uncorrected temp 3.3 °C
Thermometer ID 26
CF -0.5 Initials TS
PT-WI-SR-001 effective 7/26/13

#3941278 05/08 58CJ3/630D/C6C4

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Johnson, Andy	Carrier Tracking No(s): N/A	COC No: 180-538362.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: Indiana	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): N/A		Job #: 180-190227-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/12/2025			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: CCR Groundwater Monitoring	Project #: 18016014			
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) by 9315 (21-day decay)	9320_Ra228/PrecSep_0 Radium-228 (GFPC) by 9320	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
CCR-LF-1-050725 (180-190227-1)	5/7/25	14:45 Eastern	G	Water			X	X	X	2	
CCR-LF-3-050725 (180-190227-2)	5/7/25	15:10 Eastern	G	Water			X	X	X	2	
DUP-2-050825 (180-190227-3)	5/8/25	12:00 Eastern	G	Water			X	X	X	2	
CCR-LF-2-050825 (180-190227-4)	5/8/25	08:50 Eastern	G	Water			X	X	X	2	
CCR-LF-4-050825 (180-190227-5)	5/8/25	09:00 Eastern	G	Water			X	X	X	2	
CCR-LF-5-050825 (180-190227-6)	5/8/25	10:35 Eastern	G	Water			X	X	X	2	
CCR-LF-6-050825 (180-190227-7)	5/8/25	11:50 Eastern	G	Water			X	X	X	2	
CCR-LF-6-050825 (180-190227-7DU)	5/8/25	11:50 Eastern	G	Water			X	X	X	4	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh 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 Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

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		5/14/25 1700	STANL		1440 MAY 15 2025	
2	Relinquished by:	Date/Time:	Company	Received by: Cheyenne Forrest	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:

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-190227-1
SDG Number: Landfill

Login Number: 190227
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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?	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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-190227-1
SDG Number: Landfill

Login Number: 190227
List Number: 4
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 05/15/25 03:14 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	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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1 2 3 4 5 6 7 8 9 10 11 12 13

ANALYTICAL REPORT

PREPARED FOR

Attn: Britton Hundley
Haley & Aldrich Inc
400 Augusta Street
Suite 100
Greenville, South Carolina 29601

Generated 12/12/2025 6:48:10 PM

JOB DESCRIPTION

AB Brown Generating Station
Semi-Annual

JOB NUMBER

180-198160-1

Eurofins Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh PA 15238

See page two for job notes and contact information.

myEOL

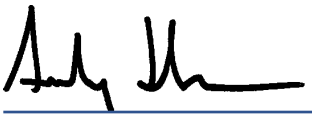
Job Notes

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.

PA Lab ID: 02-00416

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 Pittsburgh Project Manager.

Authorization



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12/12/2025 6:48:10 PM

Authorized for release by
Andy Johnson, Senior Project Manager
Andy.Johnson@et.eurofinsus.com
(615)818-9567

Table of Contents

Job Narrative
180-198160-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 11/6/2025 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.0°C, 3.3°C, 3.5°C, 4.0°C and 4.2°C.

Gas Flow Proportional Counter
Method 9315_Ra226: Radium 226 Batch 745035
The sample duplicate (DUP) precision for 160-745035 was outside control limits. Sample matrix interference was observed and documented during the initial preparation. The data have been reported with this narrative. CCR-LF-1-110425 (180-198160-2[DU])

Method 9320_Ra228: Radium-228 batch 745036
The LCS recovered at (126%). 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 (68%-154%) per method requirements. The LCS passes, no further action is required (LCS 160-745036/2-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.

Job Narrative
180-198160-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt
The samples were received on 11/6/2025 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 2.0°C, 3.3°C, 3.5°C, 4.0°C and 4.2°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: CCR-LF-6-110325 (180-198160-1), CCR-LF-1-110425 (180-198160-2), CCR-LF-1-110425 (180-198160-2[MS]), CCR-LF-1-110425 (180-198160-2[MSD]), CCR-LF-3-110425 (180-198160-3), CCR-LF-2-110425 (180-198160-4), CCR-LF-5-110425 (180-198160-5), CCR-LF-4-110425 (180-198160-6) and DUP-2-110425 (180-198160-7). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: CCR-LF-4-110425 (180-198160-6), DUP-2-110425 (180-198160-7), (180-198099-D-1), (180-198099-D-1 MS) and (180-198099-D-1 MSD). 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.

Metals
Method 6010D - Total Recoverable: The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of 5: CCR-LF-2-110425 (180-198160-4). The sample(s) were preserved to the appropriate pH in the laboratory.
This does not meet regulatory requirements.

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.

Definitions/Glossary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Qualifiers

HPLC/IC

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.

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
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Rad

Qualifier	Qualifier Description
F	Duplicate RPD exceeds the control limit
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

Accreditation/Certification Summary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Laboratory: Eurofins Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00690	06-28-25 *
California	State	2891	04-30-26
Connecticut	State	PH-0820	09-30-26
Florida	NELAP	E871008	06-30-25 *
Georgia	State	PA 02-00416	04-30-26
Illinois	NELAP	200005	07-31-25 *
Kansas	NELAP	E-10350	01-31-26
Kentucky (UST)	State	162013	04-30-26
Kentucky (WW)	State	KY98043	12-31-25
Louisiana	NELAP	04041	06-30-22 *
Louisiana (All)	NELAP	04041	06-30-25 *
Maine	State	PA00164	03-06-26
Minnesota	NELAP	042-999-482	12-31-25
New Hampshire	NELAP	2030	04-04-26
New Jersey	NELAP	PA005	06-30-25 *
New York	NELAP	11182	03-31-26
North Carolina (WW/SW)	State	434	12-31-25
North Dakota	State	R-227	04-30-24 *
Oregon	NELAP	PA-2151	02-06-26
Pennsylvania	NELAP	02-00416	04-30-26
Rhode Island	State	LAO00375	12-30-25
South Carolina	State	89014	04-30-25 *
Texas	NELAP	T104704528	03-31-26
US Fish & Wildlife	US Federal Programs	A21930	04-30-26
USDA	US Federal Programs	P330-16-00211	04-11-26
Utah	NELAP	PA001462024-14	03-31-24 *
Virginia	NELAP	460189	09-30-26
West Virginia DEP	State	142	01-31-26
Wisconsin	State	998027800	08-31-26

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
Connecticut	State	PH-0806	09-30-26
Georgia	State	4062	02-27-26
Illinois	NELAP	200004	08-31-26
Iowa	State	421	06-01-27
Kansas	NELAP	E-10336	01-31-26
Kentucky (UST)	State	112225	02-28-26
Kentucky (WW)	State	KY98016	12-31-25
Minnesota	NELAP	039-999-348	12-31-25
New Hampshire	NELAP	2250	09-30-26
New Jersey	NELAP	OH001	06-30-26
New York	NELAP	10975	04-01-26
North Dakota	State	R-244	02-27-26
Ohio	State	8303	02-27-26
Ohio VAP	State	ORELAP 4062	02-28-26
Oregon	NELAP	4062	02-27-26
Pennsylvania	NELAP	68-00340	08-31-26

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Laboratory: Eurofins Cleveland (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
Texas	NELAP	T104704517	08-31-26
US Fish & Wildlife	US Federal Programs	A26406	02-28-26
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-30-26
West Virginia DEP	State	210	12-31-25
Wisconsin	State	399167560	08-31-26

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-26
A2LA	Dept. of Energy	0001.01	11-30-26
A2LA	ISO/IEC 17025	0001.01	11-30-26
Alabama	State	43200	01-31-26
Alaska	State	PA00009	06-30-26
Alaska (UST)	State	17-027	12-30-26
Arizona	State	AZ0780	03-12-26
Arkansas DEQ	State	88-00660	08-09-26
California	State	2792	01-31-26
Colorado	State	PA00009	06-30-26
Connecticut	State	PH-0746	06-30-27
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-26
Delaware (DW)	State	N/A	01-31-26
Florida	NELAP	E87997	06-30-26
Georgia (DW)	State	C048	01-31-26
Illinois	NELAP	200027	01-31-26
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-26
Kentucky (DW)	State	KY90088	12-31-25
Kentucky (UST)	State	0001.01	11-30-26
Kentucky (WW)	State	KY90088	12-31-25
Louisiana (All)	NELAP	02055	06-30-26
Maine	State	2019012	03-12-27
Maryland	State	100	06-30-26
Massachusetts	State	M-PA009	06-30-26
Michigan	State	9930	01-31-26
Minnesota	NELAP	042-999-487	12-31-26
Mississippi	State	023	01-31-26
Missouri	State	450	01-31-28
Montana (DW)	State	0098	01-01-26
Nebraska	State	NE-OS-32-17	01-31-26
New Hampshire	NELAP	2730	01-10-26
New Jersey	NELAP	PA011	06-30-26
New York	NELAP	10670	04-01-26
North Carolina (DW)	State	42705	07-31-26
North Carolina (WW/SW)	State	521	12-31-25
North Dakota	State	R-205	01-31-24 *
Ohio	State	87787	01-31-26
Oklahoma	NELAP	9804	12-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (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	PA200001	09-11-26
Pennsylvania	NELAP	36-00037	01-31-26
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-29
Rhode Island	State	LAO00338	12-30-25
South Carolina	State	89002	01-31-26
Tennessee	State	02838	01-31-26
Texas	NELAP	T104704194-23-46	08-31-26
USDA	US Federal Programs	525-22-298-19481	01-23-26
Vermont	State	VT - 36037	10-28-26
Virginia	NELAP	460182	06-14-26
Washington	State	C457	04-11-26
West Virginia (DW)	State	9906 C	03-31-26
West Virginia DEP	State	055	07-31-26
Wyoming	State	8TMS-L	01-31-26
Wyoming (UST)	A2LA	0001.01	11-30-26

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	05-06-27
ANAB	Dept. of Defense ELAP	L2305	04-06-27
ANAB	Dept. of Energy	L2305.01	04-06-27
ANAB	ISO/IEC 17025	L2305	04-06-27
Arizona	State	AZ0813	12-08-26
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	07-01-26
Connecticut	State	PH-0241	03-31-27
Florida	NELAP	E87689	06-30-26
HI - RadChem Recognition	State	n/a	06-30-26
Illinois	NELAP	200023	11-30-25 *
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-26
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-26
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	10-01-26
Massachusetts	State	M-MO054	06-30-26
MI - RadChem Recognition	State	9005	06-30-26
Missouri	State	780	06-30-28
Nevada	State	MO00054	07-31-26
New Jersey	NELAP	MO002	06-30-26
New Mexico	State	MO00054	06-30-26
New York	NELAP	11616	03-31-26
North Carolina (DW)	State	29700	06-30-26
North Dakota	State	R-207	06-30-25 *
Oklahoma	NELAP	9997	12-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

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	09-01-26
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-26
Texas	NELAP	T104704193	07-31-26
US Fish & Wildlife	US Federal Programs	058448	07-31-26
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-26
Virginia	NELAP	460230	06-14-26
Washington	State	C592	08-31-26
West Virginia DEP	State	381	11-30-26

Sample Summary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
180-198160-1	CCR-LF-6-110325	Water	11/03/25 16:15	11/06/25 09:30	Indiana
180-198160-2	CCR-LF-1-110425	Water	11/04/25 10:30	11/06/25 09:30	Indiana
180-198160-3	CCR-LF-3-110425	Water	11/04/25 13:25	11/06/25 09:30	Indiana
180-198160-4	CCR-LF-2-110425	Water	11/04/25 14:45	11/06/25 09:30	Indiana
180-198160-5	CCR-LF-5-110425	Water	11/04/25 15:30	11/06/25 09:30	Indiana
180-198160-6	CCR-LF-4-110425	Water	11/04/25 16:40	11/06/25 09:30	Indiana
180-198160-7	DUP-2-110425	Water	11/04/25 13:00	11/06/25 09:30	Indiana

Method Summary

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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 SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Lab Chronicle

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Client Sample ID: CCR-LF-6-110325

Date Collected: 11/03/25 16:15
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	506070	11/10/25 20:23	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	506070	11/10/25 20:37	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	729279	11/14/25 10:41	RFN5	ELLE
Total Recoverable	Analysis	EPA 6010D		1			730277	11/14/25 18:18	T8CQ	ELLE
	Instrument ID: T75 - 27278									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:38	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A		1			732326	11/19/25 09:48	X3ZX	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			505988	11/07/25 13:23	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1003.74 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1			748729	12/10/25 21:13	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1003.74 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 14:08	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-1-110425

Date Collected: 11/04/25 10:30
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	506070	11/10/25 23:17	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	506070	11/10/25 23:32	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	734099	11/24/25 02:30	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		1			734696	11/24/25 09:46	MT26	ELLE
	Instrument ID: T74 - 23745									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:05	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A		1			732326	11/19/25 09:58	X3ZX	ELLE
	Instrument ID: M10 – 31820									

Client Sample ID: CCR-LF-1-110425

Lab Sample ID: 180-198160-2

Date Collected: 11/04/25 10:30

Matrix: Water

Date Received: 11/06/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9040C		1			506012	11/08/25 09:51	BAB	EET PIT
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			751.68 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1			748960	12/11/25 12:21	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			751.68 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 12:01	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-3-110425

Lab Sample ID: 180-198160-3

Date Collected: 11/04/25 13:25

Matrix: Water

Date Received: 11/06/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	506070	11/10/25 20:52	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		5	1 mL	1 mL	506070	11/10/25 21:06	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	731604	11/18/25 22:00	UAMX	ELLE
Total Recoverable	Analysis	EPA 6010D		1			732294	11/19/25 08:18	MT26	ELLE
	Instrument ID: T73 - 18255									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:40	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A		1			732326	11/19/25 09:50	X3ZX	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			505988	11/07/25 13:37	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1007.47 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1			748729	12/10/25 21:13	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1007.47 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 12:01	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Client Sample ID: CCR-LF-2-110425

Lab Sample ID: 180-198160-4

Date Collected: 11/04/25 14:45

Matrix: Water

Date Received: 11/06/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	506070	11/10/25 22:19	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		100	1 mL	1 mL	506070	11/10/25 22:34	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	729618	11/13/25 23:00	UAMX	ELLE
Total Recoverable	Analysis	EPA 6010D		5			730300	11/14/25 22:33	T8CQ	ELLE
	Instrument ID: T73 - 18255									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:43	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	729908	11/18/25 12:05	RFN5	ELLE
Total/NA	Analysis	EPA 7470A		1			731866	11/18/25 17:20	IJ3I	ELLE
	Instrument ID: M16									
Total/NA	Analysis	EPA 9040C		1			506006	11/08/25 10:52	RAO	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1000.74 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1			748729	12/10/25 21:13	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1000.74 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 12:01	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-5-110425

Lab Sample ID: 180-198160-5

Date Collected: 11/04/25 15:30

Matrix: Water

Date Received: 11/06/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		2.5	1 mL	1 mL	506070	11/10/25 21:21	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		25	1 mL	1 mL	506070	11/10/25 22:04	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	731604	11/18/25 22:00	UAMX	ELLE
Total Recoverable	Analysis	EPA 6010D		1			732294	11/19/25 08:21	MT26	ELLE
	Instrument ID: T73 - 18255									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:51	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A		1			732326	11/19/25 09:52	X3ZX	ELLE
	Instrument ID: M10 – 31820									

Lab Chronicle

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Client Sample ID: CCR-LF-5-110425

Lab Sample ID: 180-198160-5

Date Collected: 11/04/25 15:30

Matrix: Water

Date Received: 11/06/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9040C		1			505988	11/07/25 13:47	BAB	EET PIT
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1002.98 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1			748729	12/10/25 21:13	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1002.98 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 12:01	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Client Sample ID: CCR-LF-4-110425

Lab Sample ID: 180-198160-6

Date Collected: 11/04/25 16:40

Matrix: Water

Date Received: 11/06/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	506070	11/11/25 00:15	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		200	1 mL	1 mL	506165	11/11/25 15:46	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	731604	11/18/25 22:00	UAMX	ELLE
Total Recoverable	Analysis	EPA 6010D		1			732294	11/19/25 08:12	MT26	ELLE
	Instrument ID: T73 - 18255									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:54	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A		1			732326	11/19/25 09:54	X3ZX	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			505988	11/07/25 13:42	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1004.42 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1			748729	12/10/25 21:13	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1004.42 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 12:01	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Client Sample ID: DUP-2-110425

Date Collected: 11/04/25 13:00
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	506070	11/11/25 01:13	ERP	EET PIT
	Instrument ID: INTEGRION									
Total/NA	Analysis	EPA 9056A		200	1 mL	1 mL	506165	11/11/25 16:20	ERP	EET PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	731604	11/18/25 22:00	UAMX	ELLE
Total Recoverable	Analysis	EPA 6010D		10			732294	11/19/25 09:02	MT26	ELLE
	Instrument ID: T73 - 18255									
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B		1			680597	11/13/25 16:57	AJC	EET CLE
	Instrument ID: I15									
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A		1			732326	11/19/25 09:56	X3ZX	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			505988	11/07/25 13:52	BAB	EET PIT
	Instrument ID: OZ									
Total/NA	Analysis	SM 2540C		1	5 mL	100 mL	505978	11/07/25 12:41	A1K	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1007.93 mL	1.0 g	745035	11/13/25 07:41	VLQ	EET SL
Total/NA	Analysis	9315		1	1.0 mL	1.0 mL	748729	12/10/25 21:13	SWS	EET SL
	Instrument ID: GFPCBLUE									
Total/NA	Prep	PrecSep_0			1007.93 mL	1.0 g	745036	11/13/25 07:45	VLQ	EET SL
Total/NA	Analysis	9320		1			748719	12/10/25 12:01	SWS	EET SL
	Instrument ID: GFPCPROTEAN									
Total/NA	Analysis	Ra226_Ra228		1			749177	12/12/25 10:25	FLC	EET SL
	Instrument ID: NOEQUIP									

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Analyst References:

Lab: EET CLE
- Batch Type: Prep
  - MN7X = Matigan Hammer
- Batch Type: Analysis
  - AJC = Alexander Colosi

Lab: EET PIT
- Batch Type: Analysis
  - A1K = Agnes Komlos
  - BAB = Brooke Batyi
  - ERP = Evan Papak
  - RAO = Rachel Oster

Lab: EET SL
- Batch Type: Prep
  - VLQ = Valerie Quevreaux
- Batch Type: Analysis
  - FLC = Fernando Cruz
  - SWS = Seth Stubblefield

Lab: ELLE
- Batch Type: Prep
  - RFN5 = Aniyah Oxendine
  - UAMX = Annamaria Kuhns
  - UJL8 = James Mertz
- Batch Type: Analysis
  - IJ3I = Elizabeth Brittingham
  - MT26 = Jason Knight
  - T8CQ = Sera Bargo
  - X3ZX = Skyler Ruf

Client Sample ID: CCR-LF-6-110325

Date Collected: 11/03/25 16:15
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-1

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36**		1.0	0.71	mg/L			11/10/25 20:23	1
Fluoride	**0.34**		0.10	0.026	mg/L			11/10/25 20:23	1
Sulfate	**1100**		10	7.6	mg/L			11/10/25 20:37	10

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.55**		0.050	0.012	mg/L		11/14/25 10:41	11/14/25 18:18	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:38	1
Arsenic	ND		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:38	1
Barium	**0.023**		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:38	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:38	1
Cadmium	**0.00032**	**J**	0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:38	1
Calcium	**300**		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:38	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:38	1
Cobalt	**0.00035**	**J**	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:38	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:38	1
Lithium	**0.018**		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:38	1
Molybdenum	**0.0018**	**J**	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:38	1
Selenium	**0.0014**	**J**	0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:38	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:38	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1900**		20	20	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.2**	**HF**	0.1	0.1	SU			11/07/25 13:23	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.121	U	0.176	0.176	1.00	0.299	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*30 - 110*	*11/13/25 07:41*	*12/10/25 21:13*	*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	0.222	U	0.441	0.441	1.00	0.765	pCi/L	11/13/25 07:45	12/10/25 14:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*30 - 110*	*11/13/25 07:45*	*12/10/25 14:08*	*1*

Client Sample ID: CCR-LF-6-110325
Date Collected: 11/03/25 16:15
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-1
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*86.0*		*30 - 110*	*11/13/25 07:45*	*12/10/25 14:08*	*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	0.344	U	0.475	0.475	5.00	0.765	pCi/L		12/12/25 10:25	1

Client Sample ID: CCR-LF-1-110425

Date Collected: 11/04/25 10:30
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-2

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		1.0	0.71	mg/L			11/10/25 23:17	1
Fluoride	**0.25**		0.10	0.026	mg/L			11/10/25 23:17	1
Sulfate	**1100**		10	7.6	mg/L			11/10/25 23:32	10

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.073**		0.050	0.012	mg/L		11/24/25 02:30	11/24/25 09:46	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:05	1
Arsenic	**0.0012**	**J**	0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:05	1
Barium	**0.086**		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:05	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:05	1
Cadmium	**0.000088**	**J**	0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:05	1
Calcium	**300**		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:05	1
Chromium	**0.0016**	**J**	0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:05	1
Cobalt	**0.00045**	**J**	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:05	1
Lead	**0.00079**	**J**	0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:05	1
Lithium	**0.0058**	**J**	0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:05	1
Molybdenum	**0.0021**	**J**	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:05	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:05	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:05	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**2100**		20	20	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**6.8**	**HF**	0.1	0.1	SU			11/08/25 09:51	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.635**		0.289	0.295	1.00	0.345	pCi/L	11/13/25 07:41	12/11/25 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*11/13/25 07:41*	*12/11/25 12:21*	*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	0.227	U	0.530	0.530	1.00	0.924	pCi/L	11/13/25 07:45	12/10/25 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*30 - 110*	*11/13/25 07:45*	*12/10/25 12:01*	*1*

Client Sample ID: CCR-LF-1-110425

Date Collected: 11/04/25 10:30
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-2

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*79.3*		*30 - 110*	*11/13/25 07:45*	*12/10/25 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	0.862	U	0.604	0.607	5.00	0.924	pCi/L		12/12/25 10:25	1

Client Sample ID: CCR-LF-3-110425

Date Collected: 11/04/25 13:25
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-3

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.2**		1.0	0.71	mg/L			11/10/25 20:52	1
Fluoride	**0.39**		0.10	0.026	mg/L			11/10/25 20:52	1
Sulfate	**570**		5.0	3.8	mg/L			11/10/25 21:06	5

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.26**		0.050	0.012	mg/L		11/18/25 22:00	11/19/25 08:18	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:40	1
Arsenic	ND		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:40	1
Barium	**0.021**		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:40	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:40	1
Cadmium	ND		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:40	1
Calcium	**140**		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:40	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:40	1
Cobalt	ND		0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:40	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:40	1
Lithium	ND		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:40	1
Molybdenum	**0.0023**	**J**	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:40	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:40	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:40	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1200**		10	10	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	**7.4**	**HF**	0.1	0.1	SU			11/07/25 13:37	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0533	U	0.176	0.176	1.00	0.330	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*30 - 110*	*11/13/25 07:41*	*12/10/25 21:13*	*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	0.534	U	0.406	0.409	1.00	0.624	pCi/L	11/13/25 07:45	12/10/25 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*30 - 110*	*11/13/25 07:45*	*12/10/25 12:01*	*1*

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Client Sample ID: CCR-LF-3-110425
Date Collected: 11/04/25 13:25
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-3
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*81.9*		*30 - 110*	*11/13/25 07:45*	*12/10/25 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	0.587	U	0.443	0.445	5.00	0.624	pCi/L		12/12/25 10:25	1

Client Sample ID: CCR-LF-2-110425

Date Collected: 11/04/25 14:45
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-4

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	370		10	7.1	mg/L			11/10/25 22:19	10
Fluoride	0.31	J	1.0	0.26	mg/L			11/10/25 22:19	10
Sulfate	15000		100	76	mg/L			11/10/25 22:34	100

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.0		0.25	0.060	mg/L		11/13/25 23:00	11/14/25 22:33	5

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:43	1
Arsenic	0.0014	J	0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:43	1
Barium	0.011		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:43	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:43	1
Cadmium	0.0054		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:43	1
Calcium	370		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:43	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:43	1
Cobalt	0.013		0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:43	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:43	1
Lithium	0.018		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:43	1
Molybdenum	0.0027	J	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:43	1
Selenium	0.0034	J	0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:43	1
Thallium	0.00066	J	0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:43	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 12:05	11/18/25 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	23000		200	200	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	6.6	HF	0.1	0.1	SU			11/08/25 10:52	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.330	U	0.288	0.290	1.00	0.438	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.4*		*30 - 110*	*11/13/25 07:41*	*12/10/25 21:13*	*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		0.769	0.812	1.00	0.839	pCi/L	11/13/25 07:45	12/10/25 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.4*		*30 - 110*	*11/13/25 07:45*	*12/10/25 12:01*	*1*

Client Sample ID: CCR-LF-2-110425

Date Collected: 11/04/25 14:45
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-4

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*75.5*		*30 - 110*	*11/13/25 07:45*	*12/10/25 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	**3.16**		0.821	0.862	5.00	0.839	pCi/L		12/12/25 10:25	1

Client Sample ID: CCR-LF-5-110425

Date Collected: 11/04/25 15:30
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-5

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	310		2.5	1.8	mg/L			11/10/25 21:21	2.5
Fluoride	0.23	J	0.25	0.065	mg/L			11/10/25 21:21	2.5
Sulfate	2700		25	19	mg/L			11/10/25 22:04	25

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.1		0.050	0.012	mg/L		11/18/25 22:00	11/19/25 08:21	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:51	1
Arsenic	ND		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:51	1
Barium	0.024		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:51	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:51	1
Cadmium	0.00025	J	0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:51	1
Calcium	430		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:51	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:51	1
Cobalt	0.00014	J	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:51	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:51	1
Lithium	0.020		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:51	1
Molybdenum	ND		0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:51	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:51	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:51	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00022		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	5000		40	40	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.1	HF	0.1	0.1	SU			11/07/25 13:47	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.128	U	0.170	0.170	1.00	0.285	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*30 - 110*	*11/13/25 07:41*	*12/10/25 21:13*	*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	0.478	U	0.506	0.508	1.00	0.824	pCi/L	11/13/25 07:45	12/10/25 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*30 - 110*	*11/13/25 07:45*	*12/10/25 12:01*	*1*

Client: Haley & Aldrich Inc
Project/Site: AB Brown Generating Station

Job ID: 180-198160-1
SDG: Semi-Annual

Client Sample ID: CCR-LF-5-110425
Date Collected: 11/04/25 15:30
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-5
Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*73.3*		*30 - 110*	*11/13/25 07:45*	*12/10/25 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	0.606	U	0.534	0.536	5.00	0.824	pCi/L		12/12/25 10:25	1

Client Sample ID: CCR-LF-4-110425

Date Collected: 11/04/25 16:40
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-6

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		10	7.1	mg/L			11/11/25 00:15	10
Fluoride	0.48	J	1.0	0.26	mg/L			11/11/25 00:15	10
Sulfate	13000		200	150	mg/L			11/11/25 15:46	200

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.51		0.050	0.012	mg/L		11/18/25 22:00	11/19/25 08:12	1

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:54	1
Arsenic	0.022		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:54	1
Barium	0.011		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:54	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:54	1
Cadmium	ND		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:54	1
Calcium	340		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:54	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:54	1
Cobalt	0.00093	J	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:54	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:54	1
Lithium	0.081		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:54	1
Molybdenum	0.026		0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:54	1
Selenium	0.0011	J	0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:54	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:54	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	15000		200	200	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	6.9	HF	0.1	0.1	SU			11/07/25 13:42	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	3.79		0.594	0.686	1.00	0.340	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*30 - 110*	*11/13/25 07:41*	*12/10/25 21:13*	*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	1.94		0.654	0.678	1.00	0.832	pCi/L	11/13/25 07:45	12/10/25 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*30 - 110*	*11/13/25 07:45*	*12/10/25 12:01*	*1*

Client Sample ID: CCR-LF-4-110425

Date Collected: 11/04/25 16:40
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-6

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*74.8*		*30 - 110*	*11/13/25 07:45*	*12/10/25 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	**5.73**		0.883	0.965	5.00	0.832	pCi/L		12/12/25 10:25	1

Client Sample ID: DUP-2-110425

Date Collected: 11/04/25 13:00
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-7

Matrix: Water

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	380		10	7.1	mg/L			11/11/25 01:13	10
Fluoride	0.32	J	1.0	0.26	mg/L			11/11/25 01:13	10
Sulfate	18000		200	150	mg/L			11/11/25 16:20	200

Method: SW846 EPA 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.1		0.50	0.12	mg/L		11/18/25 22:00	11/19/25 09:02	10

Method: SW846 EPA 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 16:57	1
Arsenic	0.0012	J	0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:57	1
Barium	0.011		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:57	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:57	1
Cadmium	0.0053		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:57	1
Calcium	380		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:57	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:57	1
Cobalt	0.013		0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:57	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:57	1
Lithium	0.018		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:57	1
Molybdenum	0.0025	J	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:57	1
Selenium	0.0023	J	0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:57	1
Thallium	0.00068	J	0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:57	1

Method: SW846 EPA 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	23000		200	200	mg/L			11/07/25 12:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	6.8	HF	0.1	0.1	SU			11/07/25 13:52	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.641		0.343	0.348	1.00	0.463	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*30 - 110*	*11/13/25 07:41*	*12/10/25 21:13*	*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	2.27		0.760	0.788	1.00	0.977	pCi/L	11/13/25 07:45	12/10/25 12:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.9*		*30 - 110*	*11/13/25 07:45*	*12/10/25 12:01*	*1*

Client Sample ID: DUP-2-110425

Date Collected: 11/04/25 13:00
Date Received: 11/06/25 09:30

Lab Sample ID: 180-198160-7

Matrix: Water

Method: SW846 9320 - Radium-228 (GFPC) (Continued)

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Y Carrier	*75.1*		*30 - 110*	*11/13/25 07:45*	*12/10/25 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	**2.91**		0.834	0.861	5.00	0.977	pCi/L		12/12/25 10:25	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-506070/45
Matrix: Water
Analysis Batch: 506070

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	0.71	mg/L			11/10/25 22:48	1
Fluoride	ND		0.10	0.026	mg/L			11/10/25 22:48	1
Sulfate	ND		1.0	0.76	mg/L			11/10/25 22:48	1

Lab Sample ID: MB 180-506070/6
Matrix: Water
Analysis Batch: 506070

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	0.71	mg/L			11/10/25 12:32	1
Fluoride	ND		0.10	0.026	mg/L			11/10/25 12:32	1
Sulfate	ND		1.0	0.76	mg/L			11/10/25 12:32	1

Lab Sample ID: LCS 180-506070/46
Matrix: Water
Analysis Batch: 506070

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	49.1		mg/L		98	80 - 120		
Fluoride			2.50	2.64		mg/L		106	80 - 120		
Sulfate			50.0	50.3		mg/L		101	80 - 120		

Lab Sample ID: LCS 180-506070/7
Matrix: Water
Analysis Batch: 506070

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	80 - 120		
Fluoride			2.50	2.62		mg/L		105	80 - 120		
Sulfate			50.0	49.4		mg/L		99	80 - 120		

Lab Sample ID: 180-198160-2 MS
Matrix: Water
Analysis Batch: 506070

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	19		500	523		mg/L		101	80 - 120		
Fluoride	0.36	J	25.0	26.5		mg/L		105	80 - 120		
Sulfate	1100		500	1610		mg/L		93	80 - 120		

Lab Sample ID: 180-198160-2 MSD
Matrix: Water
Analysis Batch: 506070

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19		500	524		mg/L		101	80 - 120	0	15
Fluoride	0.36	J	25.0	26.8		mg/L		106	80 - 120	1	15
Sulfate	1100		500	1610		mg/L		94	80 - 120	0	15

Method: EPA 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 180-506165/6
Matrix: Water
Analysis Batch: 506165

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	0.71	mg/L			11/11/25 11:22	1
Fluoride	ND		0.10	0.026	mg/L			11/11/25 11:22	1
Sulfate	ND		1.0	0.76	mg/L			11/11/25 11:22	1

Lab Sample ID: LCS 180-506165/7
Matrix: Water
Analysis Batch: 506165

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	49.1		mg/L		98	80 - 120
Fluoride	2.50	2.70		mg/L		108	80 - 120
Sulfate	50.0	50.7		mg/L		101	80 - 120

Method: EPA 6010D - Metals (ICP)

Lab Sample ID: MB 410-729279/1-A
Matrix: Water
Analysis Batch: 730277

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 729279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		11/14/25 10:41	11/14/25 18:50	1

Lab Sample ID: LCS 410-729279/2-A
Matrix: Water
Analysis Batch: 730277

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 729279

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.473		mg/L		95	83 - 119

Lab Sample ID: MB 410-729618/1-A
Matrix: Water
Analysis Batch: 730277

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 729618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		11/13/25 23:00	11/14/25 17:39	1

Lab Sample ID: LCS 410-729618/2-A
Matrix: Water
Analysis Batch: 730277

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 729618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.498		mg/L		100	83 - 119

Lab Sample ID: MB 410-731604/1-A
Matrix: Water
Analysis Batch: 732294

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 731604

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		11/18/25 22:00	11/19/25 07:39	1

Method: EPA 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 410-731604/2-A
Matrix: Water
Analysis Batch: 732294

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 731604

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.493		mg/L		99	83 - 119

Lab Sample ID: MB 410-734099/1-A
Matrix: Water
Analysis Batch: 734696

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 734099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		11/24/25 02:30	11/24/25 09:40	1

Lab Sample ID: LCS 410-734099/2-A
Matrix: Water
Analysis Batch: 734696

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 734099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.481		mg/L		96	83 - 119

Lab Sample ID: 180-198160-2 MS
Matrix: Water
Analysis Batch: 734696

Client Sample ID: CCR-LF-1-110425
Prep Type: Total Recoverable
Prep Batch: 734099

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.073		0.500	0.551		mg/L		96	75 - 125

Lab Sample ID: 180-198160-2 MSD
Matrix: Water
Analysis Batch: 734696

Client Sample ID: CCR-LF-1-110425
Prep Type: Total Recoverable
Prep Batch: 734099

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.073		0.500	0.545		mg/L		95	75 - 125	1	20

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-680302/1-A
Matrix: Water
Analysis Batch: 680597

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 680302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.0020	0.00057	mg/L		11/12/25 14:00	11/13/25 15:59	1
Arsenic	ND		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 15:59	1
Barium	ND		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 15:59	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 15:59	1
Cadmium	ND		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 15:59	1
Calcium	ND		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 15:59	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 15:59	1
Cobalt	ND		0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 15:59	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 15:59	1
Lithium	ND		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 15:59	1
Molybdenum	ND		0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 15:59	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 15:59	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 15:59	1

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 240-680302/2-A
Matrix: Water
Analysis Batch: 680597

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 680302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.100	0.103		mg/L		103	80 - 120
Arsenic	1.00	1.02		mg/L		102	80 - 120
Barium	1.00	0.995		mg/L		99	80 - 120
Beryllium	0.500	0.495		mg/L		99	80 - 120
Cadmium	0.500	0.484		mg/L		97	80 - 120
Calcium	25.0	25.4		mg/L		101	80 - 120
Chromium	0.500	0.489		mg/L		98	80 - 120
Cobalt	0.500	0.495		mg/L		99	80 - 120
Lead	0.500	0.499		mg/L		100	80 - 120
Lithium	0.500	0.521		mg/L		104	80 - 120
Molybdenum	0.500	0.490		mg/L		98	80 - 120
Selenium	1.00	0.986		mg/L		99	80 - 120
Thallium	1.00	0.999		mg/L		100	80 - 120

Lab Sample ID: 180-198160-2 MS
Matrix: Water
Analysis Batch: 680597

Client Sample ID: CCR-LF-1-110425
Prep Type: Total Recoverable
Prep Batch: 680302

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		0.100	0.104		mg/L		104	80 - 120
Arsenic	0.0012	J	1.00	1.06		mg/L		106	80 - 120
Barium	0.086		1.00	1.11		mg/L		103	80 - 120
Beryllium	ND		0.500	0.507		mg/L		101	80 - 120
Cadmium	0.000088	J	0.500	0.489		mg/L		98	80 - 120
Calcium	300		25.0	322	4	mg/L		96	80 - 120
Chromium	0.0016	J	0.500	0.504		mg/L		101	80 - 120
Cobalt	0.00045	J	0.500	0.502		mg/L		100	80 - 120
Lead	0.00079	J	0.500	0.503		mg/L		100	80 - 120
Lithium	0.0058	J	0.500	0.540		mg/L		107	80 - 120
Molybdenum	0.0021	J	0.500	0.511		mg/L		102	80 - 120
Selenium	ND		1.00	0.989		mg/L		99	80 - 120
Thallium	ND		1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: 180-198160-2 MSD
Matrix: Water
Analysis Batch: 680597

Client Sample ID: CCR-LF-1-110425
Prep Type: Total Recoverable
Prep Batch: 680302

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		0.100	0.102		mg/L		102	80 - 120	1	20
Arsenic	0.0012	J	1.00	1.03		mg/L		102	80 - 120	3	20
Barium	0.086		1.00	1.08		mg/L		100	80 - 120	3	20
Beryllium	ND		0.500	0.513		mg/L		103	80 - 120	1	20
Cadmium	0.000088	J	0.500	0.479		mg/L		96	80 - 120	2	20
Calcium	300		25.0	317	4	mg/L		76	80 - 120	2	20
Chromium	0.0016	J	0.500	0.490		mg/L		98	80 - 120	3	20
Cobalt	0.00045	J	0.500	0.490		mg/L		98	80 - 120	2	20
Lead	0.00079	J	0.500	0.492		mg/L		98	80 - 120	2	20
Lithium	0.0058	J	0.500	0.536		mg/L		106	80 - 120	1	20
Molybdenum	0.0021	J	0.500	0.501		mg/L		100	80 - 120	2	20

Method: EPA 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 180-198160-2 MSD
Matrix: Water
Analysis Batch: 680597

Client Sample ID: CCR-LF-1-110425
Prep Type: Total Recoverable
Prep Batch: 680302

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Selenium	ND		1.00	0.968		mg/L		97	80 - 120	2	20
Thallium	ND		1.00	0.986		mg/L		99	80 - 120	2	20

Method: EPA 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-729908/1-A
Matrix: Water
Analysis Batch: 731866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 729908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 12:05	11/18/25 16:43	1

Lab Sample ID: LCS 410-729908/2-A
Matrix: Water
Analysis Batch: 731866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 729908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.00109		mg/L		109	80 - 120

Lab Sample ID: MB 410-731789/1-A
Matrix: Water
Analysis Batch: 732326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 731789

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000087	mg/L		11/18/25 23:45	11/19/25 09:11	1

Lab Sample ID: LCS 410-731789/2-A
Matrix: Water
Analysis Batch: 732326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 731789

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00100	0.00104		mg/L		104	80 - 120

Lab Sample ID: 180-198160-2 MS
Matrix: Water
Analysis Batch: 732326

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA
Prep Batch: 731789

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00100	0.00112		mg/L		112	80 - 120

Lab Sample ID: 180-198160-2 MSD
Matrix: Water
Analysis Batch: 732326

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA
Prep Batch: 731789

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00100	0.00112		mg/L		112	80 - 120	0	20

Method: EPA 9040C - pH

Lab Sample ID: LCS 180-505988/24
Matrix: Water
Analysis Batch: 505988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: 180-198160-1 DU
Matrix: Water
Analysis Batch: 505988

Client Sample ID: CCR-LF-6-110325
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.2	HF	7.2		SU		0.1	2

Lab Sample ID: LCS 180-506006/1
Matrix: Water
Analysis Batch: 506006

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Lab Sample ID: LCS 180-506012/1
Matrix: Water
Analysis Batch: 506012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	7.0		SU		100	99 - 101

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 180-505978/1
Matrix: Water
Analysis Batch: 505978

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	10	mg/L			11/07/25 12:41	1

Lab Sample ID: LCS 180-505978/2
Matrix: Water
Analysis Batch: 505978

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	285	286		mg/L		100	85 - 115

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-745035/1-A
Matrix: Water
Analysis Batch: 748729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 745035

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09406	U	0.169	0.169	1.00	0.301	pCi/L	11/13/25 07:41	12/10/25 21:13	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-745035/1-A
Matrix: Water
Analysis Batch: 748729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 745035

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		30 - 110	11/13/25 07:41	12/10/25 21:13	1

Lab Sample ID: LCS 160-745035/2-A
Matrix: Water
Analysis Batch: 748729

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 745035

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.57	8.819		1.18	1.00	0.295	pCi/L	92	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.7		30 - 110

Lab Sample ID: 180-198160-2 DU
Matrix: Water
Analysis Batch: 748960

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA
Prep Batch: 745035

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.635			3.190	F	0.651	1.00	0.382	pCi/L			2.70	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	89.1		30 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-745036/1-A
Matrix: Water
Analysis Batch: 748719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 745036

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6930	U	0.466	0.470	1.00	0.700	pCi/L	11/13/25 07:45	12/10/25 12:00	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.1		30 - 110	11/13/25 07:45	12/10/25 12:00	1
Y Carrier	79.3		30 - 110	11/13/25 07:45	12/10/25 12:00	1

Lab Sample ID: LCS 160-745036/2-A
Matrix: Water
Analysis Batch: 748719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 745036

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.86	9.884		1.44	1.00	0.711	pCi/L	126	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-745036/2-A
Matrix: Water
Analysis Batch: 748719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 745036

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.7		30 - 110
Y Carrier	74.0		30 - 110

Lab Sample ID: 180-198160-2 DU
Matrix: Water
Analysis Batch: 748719

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA
Prep Batch: 745036

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.227	U		0.8868	U	0.621	1.00	0.932	pCi/L			0.57	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	89.1		30 - 110
Y Carrier	76.6		30 - 110

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Lab Sample ID: 180-198160-2 DU
Matrix: Water
Analysis Batch: 749177

Client Sample ID: CCR-LF-1-110425
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Combined Radium 226 + 228	0.862	U		4.077		0.900	5.00	0.932	pCi/L			2.13	

HPLC/IC

Analysis Batch: 506070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	EPA 9056A	
180-198160-1	CCR-LF-6-110325	Total/NA	Water	EPA 9056A	
180-198160-2	CCR-LF-1-110425	Total/NA	Water	EPA 9056A	
180-198160-2	CCR-LF-1-110425	Total/NA	Water	EPA 9056A	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	EPA 9056A	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	EPA 9056A	
180-198160-4	CCR-LF-2-110425	Total/NA	Water	EPA 9056A	
180-198160-4	CCR-LF-2-110425	Total/NA	Water	EPA 9056A	
180-198160-5	CCR-LF-5-110425	Total/NA	Water	EPA 9056A	
180-198160-5	CCR-LF-5-110425	Total/NA	Water	EPA 9056A	
180-198160-6	CCR-LF-4-110425	Total/NA	Water	EPA 9056A	
180-198160-7	DUP-2-110425	Total/NA	Water	EPA 9056A	
MB 180-506070/45	Method Blank	Total/NA	Water	EPA 9056A	
MB 180-506070/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-506070/46	Lab Control Sample	Total/NA	Water	EPA 9056A	
LCS 180-506070/7	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-198160-2 MS	CCR-LF-1-110425	Total/NA	Water	EPA 9056A	
180-198160-2 MSD	CCR-LF-1-110425	Total/NA	Water	EPA 9056A	

Analysis Batch: 506165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-6	CCR-LF-4-110425	Total/NA	Water	EPA 9056A	
180-198160-7	DUP-2-110425	Total/NA	Water	EPA 9056A	
MB 180-506165/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-506165/7	Lab Control Sample	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 680302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total Recoverable	Water	3005A	
180-198160-2	CCR-LF-1-110425	Total Recoverable	Water	3005A	
180-198160-3	CCR-LF-3-110425	Total Recoverable	Water	3005A	
180-198160-4	CCR-LF-2-110425	Total Recoverable	Water	3005A	
180-198160-5	CCR-LF-5-110425	Total Recoverable	Water	3005A	
180-198160-6	CCR-LF-4-110425	Total Recoverable	Water	3005A	
180-198160-7	DUP-2-110425	Total Recoverable	Water	3005A	
MB 240-680302/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-680302/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-198160-2 MS	CCR-LF-1-110425	Total Recoverable	Water	3005A	
180-198160-2 MSD	CCR-LF-1-110425	Total Recoverable	Water	3005A	

Analysis Batch: 680597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total Recoverable	Water	EPA 6020B	680302
180-198160-2	CCR-LF-1-110425	Total Recoverable	Water	EPA 6020B	680302
180-198160-3	CCR-LF-3-110425	Total Recoverable	Water	EPA 6020B	680302
180-198160-4	CCR-LF-2-110425	Total Recoverable	Water	EPA 6020B	680302
180-198160-5	CCR-LF-5-110425	Total Recoverable	Water	EPA 6020B	680302
180-198160-6	CCR-LF-4-110425	Total Recoverable	Water	EPA 6020B	680302
180-198160-7	DUP-2-110425	Total Recoverable	Water	EPA 6020B	680302

Metals (Continued)

Analysis Batch: 680597 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-680302/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	680302
LCS 240-680302/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	680302
180-198160-2 MS	CCR-LF-1-110425	Total Recoverable	Water	EPA 6020B	680302
180-198160-2 MSD	CCR-LF-1-110425	Total Recoverable	Water	EPA 6020B	680302

Prep Batch: 729279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total Recoverable	Water	3005A	
MB 410-729279/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-729279/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 729618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-4	CCR-LF-2-110425	Total Recoverable	Water	3005A	
MB 410-729618/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-729618/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 729908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-4	CCR-LF-2-110425	Total/NA	Water	7470A	
MB 410-729908/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-729908/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 730277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total Recoverable	Water	EPA 6010D	729279
MB 410-729279/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	729279
MB 410-729618/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	729618
LCS 410-729279/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	729279
LCS 410-729618/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	729618

Analysis Batch: 730300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-4	CCR-LF-2-110425	Total Recoverable	Water	EPA 6010D	729618

Prep Batch: 731604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-3	CCR-LF-3-110425	Total Recoverable	Water	3005A	
180-198160-5	CCR-LF-5-110425	Total Recoverable	Water	3005A	
180-198160-6	CCR-LF-4-110425	Total Recoverable	Water	3005A	
180-198160-7	DUP-2-110425	Total Recoverable	Water	3005A	
MB 410-731604/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-731604/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 731789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	7470A	
180-198160-2	CCR-LF-1-110425	Total/NA	Water	7470A	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	7470A	
180-198160-5	CCR-LF-5-110425	Total/NA	Water	7470A	
180-198160-6	CCR-LF-4-110425	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 731789 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-7	DUP-2-110425	Total/NA	Water	7470A	
MB 410-731789/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-731789/2-A	Lab Control Sample	Total/NA	Water	7470A	
180-198160-2 MS	CCR-LF-1-110425	Total/NA	Water	7470A	
180-198160-2 MSD	CCR-LF-1-110425	Total/NA	Water	7470A	

Analysis Batch: 731866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-4	CCR-LF-2-110425	Total/NA	Water	EPA 7470A	729908
MB 410-729908/1-A	Method Blank	Total/NA	Water	EPA 7470A	729908
LCS 410-729908/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	729908

Analysis Batch: 732294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-3	CCR-LF-3-110425	Total Recoverable	Water	EPA 6010D	731604
180-198160-5	CCR-LF-5-110425	Total Recoverable	Water	EPA 6010D	731604
180-198160-6	CCR-LF-4-110425	Total Recoverable	Water	EPA 6010D	731604
180-198160-7	DUP-2-110425	Total Recoverable	Water	EPA 6010D	731604
MB 410-731604/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	731604
LCS 410-731604/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	731604

Analysis Batch: 732326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	EPA 7470A	731789
180-198160-2	CCR-LF-1-110425	Total/NA	Water	EPA 7470A	731789
180-198160-3	CCR-LF-3-110425	Total/NA	Water	EPA 7470A	731789
180-198160-5	CCR-LF-5-110425	Total/NA	Water	EPA 7470A	731789
180-198160-6	CCR-LF-4-110425	Total/NA	Water	EPA 7470A	731789
180-198160-7	DUP-2-110425	Total/NA	Water	EPA 7470A	731789
MB 410-731789/1-A	Method Blank	Total/NA	Water	EPA 7470A	731789
LCS 410-731789/2-A	Lab Control Sample	Total/NA	Water	EPA 7470A	731789
180-198160-2 MS	CCR-LF-1-110425	Total/NA	Water	EPA 7470A	731789
180-198160-2 MSD	CCR-LF-1-110425	Total/NA	Water	EPA 7470A	731789

Prep Batch: 734099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-2	CCR-LF-1-110425	Total Recoverable	Water	3005A	
MB 410-734099/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-734099/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-198160-2 MS	CCR-LF-1-110425	Total Recoverable	Water	3005A	
180-198160-2 MSD	CCR-LF-1-110425	Total Recoverable	Water	3005A	

Analysis Batch: 734696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-2	CCR-LF-1-110425	Total Recoverable	Water	EPA 6010D	734099
MB 410-734099/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	734099
LCS 410-734099/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	734099
180-198160-2 MS	CCR-LF-1-110425	Total Recoverable	Water	EPA 6010D	734099
180-198160-2 MSD	CCR-LF-1-110425	Total Recoverable	Water	EPA 6010D	734099

General Chemistry

Analysis Batch: 505978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	SM 2540C	
180-198160-2	CCR-LF-1-110425	Total/NA	Water	SM 2540C	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	SM 2540C	
180-198160-4	CCR-LF-2-110425	Total/NA	Water	SM 2540C	
180-198160-5	CCR-LF-5-110425	Total/NA	Water	SM 2540C	
180-198160-6	CCR-LF-4-110425	Total/NA	Water	SM 2540C	
180-198160-7	DUP-2-110425	Total/NA	Water	SM 2540C	
MB 180-505978/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-505978/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 505988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	EPA 9040C	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	EPA 9040C	
180-198160-5	CCR-LF-5-110425	Total/NA	Water	EPA 9040C	
180-198160-6	CCR-LF-4-110425	Total/NA	Water	EPA 9040C	
180-198160-7	DUP-2-110425	Total/NA	Water	EPA 9040C	
LCS 180-505988/24	Lab Control Sample	Total/NA	Water	EPA 9040C	
180-198160-1 DU	CCR-LF-6-110325	Total/NA	Water	EPA 9040C	

Analysis Batch: 506006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-4	CCR-LF-2-110425	Total/NA	Water	EPA 9040C	
LCS 180-506006/1	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 506012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-2	CCR-LF-1-110425	Total/NA	Water	EPA 9040C	
LCS 180-506012/1	Lab Control Sample	Total/NA	Water	EPA 9040C	

Rad

Prep Batch: 745035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	PrecSep-21	
180-198160-2	CCR-LF-1-110425	Total/NA	Water	PrecSep-21	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	PrecSep-21	
180-198160-4	CCR-LF-2-110425	Total/NA	Water	PrecSep-21	
180-198160-5	CCR-LF-5-110425	Total/NA	Water	PrecSep-21	
180-198160-6	CCR-LF-4-110425	Total/NA	Water	PrecSep-21	
180-198160-7	DUP-2-110425	Total/NA	Water	PrecSep-21	
MB 160-745035/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-745035/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
180-198160-2 DU	CCR-LF-1-110425	Total/NA	Water	PrecSep-21	

Prep Batch: 745036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-1	CCR-LF-6-110325	Total/NA	Water	PrecSep_0	
180-198160-2	CCR-LF-1-110425	Total/NA	Water	PrecSep_0	
180-198160-3	CCR-LF-3-110425	Total/NA	Water	PrecSep_0	
180-198160-4	CCR-LF-2-110425	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 745036 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198160-5	CCR-LF-5-110425	Total/NA	Water	PrecSep_0	
180-198160-6	CCR-LF-4-110425	Total/NA	Water	PrecSep_0	
180-198160-7	DUP-2-110425	Total/NA	Water	PrecSep_0	
MB 160-745036/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-745036/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-198160-2 DU	CCR-LF-1-110425	Total/NA	Water	PrecSep_0	

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Francis Reed	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-118796-15023 1
Client Contact: Britton Hundley	Phone: 614-288-8619	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: IN	Page: Page 1 of 4
Company: Haley & Aldrich, Inc.	PWSID:			Job #: 0129420-037
Address: 400 Augusta Street Suite 100	Due Date Requested:			
City: Greenville	TAT Requested (days): STD TAT			
State, Zip: SC, 29601	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0129420-037-001-01			
Email: BHundley@haleyaldrich.com	WO #:			
Project Name: AB Brown Generating Station(semi-annual)	Project #: 18016014			
Site	SSOW#:			

Analysis Requested

Preservation Codes:
N - None
D - HNO3
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, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9040C, 9056A_ORGFM_28D	7470A - Hg by 7470A	2540C_Calcd - TDS by 2540C	9315_Ra226 - Ra226 by 9315	9320_Ra228 - Ra228 by 9320	Ra226Ra228_GFPC - Total Ra226/Ra228	6020B - Metals by 6020B	6010D - Boron by 6010D	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	D	D	D	D	D		
CCR-LF-6-110325	11/03/25	16:15	G	Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-1-110425	11/04/25	10:30		Water	N	Y	X	X	X	X	X	X	X	X	6	MS/MSD
CCR-LF-3-110925		13:25		Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-2-110425		14.45		Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-5-110425		15:30		Water	N	N	X	X	X	X	X	X	X	X	6	
CCR-LF-4-110425		16:40		Water	N	N	X	X	X	X	X	X	X	X	6	
DUP-2-110925		13:00		Water	N	N	X	X	X	X	X	X	X	X	6	Field Duplicate
				Water												
				Water												
				Water												
				Water												

180-198160 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
Frances Reed	11/05/25 18:00	H+A			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
				11/10/25 0930	EPITB

Svcs: PRIORITY OVERNIGHT Master 4642 5783 9524
TRCK: 4642 5783 9627

ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH
CENTER POINT ENERGY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238
(412) 963-7530
REF: RETURN

RMA:

Uncorrected temp 3.8 °C
Thermometer ID 28
CF +0.4 Initials SMR

PT-WI-SR-001 effective 11/8/18

FedEx Express

FedEx
TRK# 0221 4642 5783 9627

THU - 06 NOV 10:30A
PRIORITY OVERNIGHT

NP AGCA

15238
PA-US PIT

#6190970 11/05 5BHJ2/501C/59F2

180-198160 Waybill

Dep:
DV:
HANDLING: 0.00
0.00 TOTAL: 0.00

Svcs: PRIORITY OVERNIGHT Master 4642 5783 9524
TRCK: 4642 5783 9605

ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH
CENTER POINT ENERGY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238 COE 4/2
(412) 963-7530
REF: RETURN

RMA:

Uncorrected temp 3.6 °C
Thermometer ID 28
CF +0.4 Initials SMR

PT-WI-SR-001 effective 11/8/18

FedEx Express

FedEx
TRK# 0221 4642 5783 9605

THU - 06 NOV 10:30A
PRIORITY OVERNIGHT

NP AGCA

15238
PA-US PIT

70 11/05 5BHJ2/501C/59F2

Svcs: PRIORITY OVERNIGHT Master 4642 5783 9524
TRCK: 4642 5783 9616

0.00

ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH
CENTER POINT ENERGY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238
(412) 963-7630
REF: RETURN

RMA:

58GC2/501C/59F2

Uncorrected temp 3.4 °C
Thermometer ID 25

CF +0.1 Initials SMR

PT-WI-SR-001 effective 11/8/18

FedEx Express

TRK# 0221 4642 5783 9616

THU - 06 NOV 10:30A
PRIORITY OVERNIGHT

NP AGCA

15238
PA-US PIT

#6190970 11/05 58HJ2/501C/59F2

FedEx 7687-435 REV12 EXP 06/26

ORIGIN ID:AGCA (864) 549-7656
LINDSEY GISH
CENTER POINT ENERGY
A.B. BROWN GENERATING STATION
8511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

TO SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238 2/2
(412) 963-7630
REF: RETURN

RMA:

58GC2/501C/59F2

FedEx Express

FedEx
TRK# 0221 4642 5783 9524

THU - 06 NOV 10:30A
PRIORITY OVERNIGHT

NP AGCA

15238
PA-US PIT

#6190970 11/05 58HJ2/501C/59F2

Uncorrected temp 1.6 °C
Thermometer ID 28

CF +0.4 Initials SMR

PT-WI-SR-001 effective 11/8/18

FedEx 7687-435 REV12 EXP 06/26

RETURN

Date: 29Oct25
Wgt: 35.00 LBS

DV:

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
0.00 TOTAL: 0.00

os: PRIORITY OVERNIGHT Master 4642 5783 9524
TRCK: 4642 5783 9638

RIGIN ID:AGCA (864) 549-7656
INDSEY GISH
CENTER POINT ENERGY
.B. BROWN GENERATING STATION
3511 WELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

SAMPLE RECEIVING DEPARTMENT
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238
(412) 963-7530
REF: RETURN

RMA:

Uncorrected temp 3.2 °C
Thermometer ID 25
CF +0.1 Initials

PT-WI-SR-001 effective 11/8/18

FedEx Express

J25302504290 1 an

58GC2/501C/59F2

66907-435 BRDW2 EXP 06/26

PRIORITY OVERNIGHT
15238 PIT
PA-US

FedEx
TRK# 4642 5783 9638
0221

NP AGCA

#6190970 11/05 58HJ2/501C/59F2

4150
THU 11/06 08:03
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DR
PITTSBURGH PA
15238-2907-01
E
6166235

PRIORITY OVERNIGHT
798-1574FE

SHPD:10.0Y
ETP: 6
1002284320760001523800464257839638

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Johnson, Andy	Carrier Tracking No(s): N/A	COC No: 180-548518.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: Indiana	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): N/A		Job #: 180-198160-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/16/2025			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: AB Brown Generating Station	Project #: 18016014			Other: N/A
Site: N/A	SSOW#: 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_21Radium-226 (GFPC) by 9315 (21-day decay)	9320_Ra228/PrecSep_0Radium-228 (GFPC) by 9320	Ra226Ra228_GFPCCombined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
CCR-LF-6-110325 (180-198160-1)	11/3/25	16:15 Eastern	G	Water			X	X	X	2	
CCR-LF-1-110425 (180-198160-2DU)	11/4/25	10:30 Eastern	G	Water			X	X	X	6	
CCR-LF-3-110425 (180-198160-3)	11/4/25	13:25 Eastern	G	Water			X	X	X	2	
CCR-LF-2-110425 (180-198160-4)	11/4/25	14:45 Eastern	G	Water			X	X	X	2	
CCR-LF-5-110425 (180-198160-5)	11/4/25	15:30 Eastern	G	Water			X	X	X	2	
CCR-LF-4-110425 (180-198160-6)	11/4/25	16:40 Eastern	G	Water			X	X	X	2	
DUP-2-110425 (180-198160-7)	11/4/25	13:00 Eastern	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Pittsburgh 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 Pittsburgh laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Pittsburgh attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Pittsburgh.

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
		11/10/25 1100			0935 NOV 11 2025	
	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:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Haley & Aldrich Inc

Job Number: 180-198160-1
SDG Number: Semi-Annual

Login Number: 198160
List Number: 1
Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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?	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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Login Sample Receipt Checklist

Client: Haley & Aldrich Inc

Job Number: 180-198160-1
SDG Number: Semi-Annual

Login Number: 198160
List Number: 3
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 11/11/25 01:30 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	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Login Sample Receipt Checklist

Client: Haley & Aldrich Inc

Job Number: 180-198160-1
SDG Number: Semi-Annual

Login Number: 198160
List Number: 5
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 11/12/25 08:52 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	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.