

ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
SEDIMENTATION POND
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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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 residuals] 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 Sedimentation Pond 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 Sedimentation Pond 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 Sedimentation Pond 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 Sedimentation Pond to meet the requirements of 40 CFR § 257.95. The Sedimentation Pond 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 in any of the Sedimentation Pond monitoring wells in 2025. A summary of statistical analysis is provided 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 Sedimentation Pond 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 Sedimentation Pond 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 Sedimentation Pond 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 Sedimentation Pond 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 Sedimentation Pond 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 for the groundwater sampling events are provided in Appendix B. Laboratory analytical reports are provided 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 § 257.95(d)(1). Groundwater samples were collected from the monitoring wells at the Sedimentation Pond from May 7 to 8, 2025, and again from November 4 to 7, 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 19, 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.

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 Sedimentation Pond. Although SSLs were not identified, some concentrations remain above background and in accordance with 40 CFR 257.95(f), the Sedimentation Pond will continue with semiannual assessment monitoring.

1.3.2 Key Actions Completed

The following key actions were completed in 2025:

- January 31, 2025 – Prepared 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 19, 2024.
- May 5, 2025 – Measured static water levels in groundwater monitoring wells at the Sedimentation Pond before 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 to 8, 2025 – Collected groundwater samples from monitoring wells at the Sedimentation Pond 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 Sedimentation Pond 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 4 to 7, 2025 – Collected groundwater samples from monitoring wells at the Sedimentation Pond 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 Sedimentation Pond 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 Sedimentation Pond and associated upgradient, and downgradient wells is presented on Figure 1. Groundwater elevation contours for the May 2025 sampling event are presented on Figure 2. Groundwater elevation contours created for the November 2025 sampling 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 40 CFR § 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 Sedimentation Pond 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 Sedimentation Pond. Although SSLs were not present, one monitoring well had constituent concentrations above background in May 2025 and November 2025; therefore, in accordance with 40 CFR § 257.95(f), the Sedimentation Pond 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 and recording of groundwater monitoring results in the operating record were discussed in prior annual reports.

TABLES

TABLE 1
GROUNDWATER MONITORING WELL LOCATION AND CONSTRUCTION DETAILS
 SEDIMENTATION POND
 A.B. BROWN GENERATING STATION
 POSEY COUNTY, INDIANA

Well	Date Installed	Northing	Easting	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 Wells												
CCR-BK-1R	March 2016	2770919.15	974083.30	480.10	483.39	0.0 - 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	0.0 - 11.5	11.5 - 13.5	13.5 - 25.5	15.50 - 25.50	10	2	Active
Sedimentation Pond Wells												
CCR-SP-1R	February 2024	2770042.89	970981.73	404.20	403.94	1.0 - 4.5	4.5 - 7.0	7.0 - 20.3	10.27 - 20.27	10	2	Active
CCR-SP-2	March 2016	2769939.51	970887.25	403.60	403.23	1.0 - 6.0	6.0 - 8.0	8.0 - 20.0	10.00 - 20.00	10	2	Active
CCR-SP-3	March 2016	2770027.64	970735.02	403.90	403.57	1.0 - 6.0	6.0 - 8.0	8.0 - 20.0	10.00 - 20.00	10	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
 SEDIMENTATION POND
 A.B. BROWN GENERATING STATION
 POSEY COUNTY, INDIANA

Location Group Location Name Sample Name Sample Date Lab Sample ID	Criteria GWPS	Background				Downgradient								
		CCR-BK-1R CCR-BK-1R-050725 05/07/2025 180-190174-15	CCR-BK-1R CCR-BK-1R-110725 11/07/2025 180-198316-18	CCR-BK-2 CCR-BK-2-050725 05/07/2025 180-190174-17	CCR-BK-2 CCR-BK-2-110625 11/06/2025 180-198316-10	CCR-SP-1R CCR-SP-1R-050825 05/08/2025 180-190226-1	CCR-SP-1R CCR-SP-1R-110425 11/04/2025 180-198159-1	CCR-SP-2 CCR-SP-2-050825 05/08/2025 180-190226-2	CCR-SP-2 DUP-3-050825 05/08/2025 180-190226-4	CCR-SP-2 CCR-SP-2-110425 11/04/2025 180-198159-2	CCR-SP-3 CCR-SP-3-050825 05/08/2025 180-190226-3	CCR-SP-3 CCR-SP-3-110425 11/04/2025 180-198159-3	CCR-SP-3 DUP-1-110425 11/04/2025 180-198159-4	
Detection Monitoring - USEPA Appendix III Constituents (mg/L)														
Boron, Total	NA	0.067 U	1.5	0.05 U	0.05 U	1.1	1.3	0.085	0.09	0.082	0.041 J	0.019 J	0.019 J	
Calcium, Total	NA	54	48	45	39	330	280	230	230	220	130	89	98	
Chloride	NA	7.4	10	14	18	53	110	62	62	71	21	9	11	
Fluoride	4	0.17	0.21	0.11	0.15	0.28	0.25	0.45	0.48	0.24	0.2 J	0.33	0.33	
pH (lab) (pH units)	NA	7 J	6.9 J	6.9 J	6.8 J	6.7 J	7 J	6.8 J	6.8 J	7 J	7.1 J	7.2 J	7 J	
Sulfate	NA	65	58	22	23	66	1600	480	470	570	170	37	53	
Total Dissolved Solids (TDS)	NA	280	300	260	240	3000	3000	1300	1400	1400	680	420	460	
Assessment Monitoring - USEPA 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	
Arsenic, Total	0.01	0.005 U	0.005 U	0.005 U	0.005 U	0.005	0.0044 J	0.0024 J	0.0026 J	0.002 J	0.00076 J	0.0066	0.0075	
Barium, Total	2	0.12	0.1	0.035	0.032	0.04	0.027	0.11	0.11	0.1	0.083	0.074	0.081	
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	
Cadmium, Total	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.00036 J	0.0002 J	0.001 U	0.001 U	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	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	0.00036 J	0.00013 J	0.001 U	0.001 U	0.0091	0.0084	0.0011	0.0011	0.00084 J	0.0002 J	0.00061 J	0.00064 J	
Fluoride	4	0.17	0.21	0.11	0.15	0.28	0.25	0.45	0.48	0.24	0.2 J	0.33	0.33	
Lead, Total	0.015	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	0.016	0.0093	0.008 U	0.008 U	0.005 J	0.007 J	0.0044 J	0.0041 J	0.0065 J	0.0042 J	0.008 U	0.008 U	
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	0.0002 U	0.0002 U	
Molybdenum, Total	0.1	0.0021 J	0.0015 J	0.005 U	0.0014 J	0.0013 J	0.0014 J	0.0013 J	0.0012 J	0.0014 J	0.0026 J	0.004 J	0.0043 J	
Selenium, Total	0.05	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	
Thallium, Total	0.002	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	
Radiological (pCi/L)														
Radium-226	NA	0.118 U ± 0.279	0.308 ± 0.171	0.0418 U ± 0.181	0.259 ± 0.176	0.207 U ± 0.252	0.143 U ± 0.129	0.362 ± 0.244	0.0961 U ± 0.179	0.256 ± 0.18	0.0915 U ± 0.159	0.275 ± 0.182	0.557 ± 0.234	
Radium-228	NA	0.252 U ± 0.378	0.126 U ± 0.38	0.0814 U ± 0.328	0.392 U ± 0.418	0.983 ± 0.437	0.106 U ± 0.348	0.366 U ± 0.343	0.269 U ± 0.368	0.751 ± 0.459	0.016 U ± 0.249	0.0171 U ± 0.393	0.523 U ± 0.493	
Radium-226 & 228	5	0.37 U ± 0.47	0.434 UJ ± 0.417	0.123 U ± 0.375	0.65 UJ ± 0.454	1.19 J ± 0.504	0.249 U ± 0.371	0.728 J ± 0.421	0.365 U ± 0.409	1.01 ± 0.493	0.108 U ± 0.295	0.292 UJ ± 0.433	1.08 J ± 0.546	
Field Parameters														
Temperature (Deg C)	NA	15.52	16.77	16.88	17.9	15.4	19.89	16.04	16.04	19.08	14.84	19.58	19.58	
Dissolved Oxygen, Field (mg/L)	NA	2.55	4.7	0.93	0.61	0.31	1.22	0.27	0.27	1.57	0.83	1.19	1.19	
Conductivity, Field (mS/cm)	NA	0.4	0.327	0.357	0.313	3.5	3.48	1.76	1.76	1.74	0.725	0.515	0.515	
Oxidation Reduction Potential (ORP), Field (mv)	NA	271	242	312	140	-61	-2	-64	-64	-12	79	-58	-58	
Turbidity, Field (NTU)	NA	5.4	0	0	1.7	12.9	0	4	4	1.3	2.2	1.4	1.4	
pH, Field (pH units)	NA	7.14	6.05	6.8	6.69	6.58	6.85	6.69	6.69	6.89	6.89	7.21	7.21	

Notes and Abbreviations:
 CCR: Coal Combustion Residuals
 mg/L: milligram per liter
 pCi/L: picocuries per liter
 Deg C: Degrees Celsius
 mS/cm: milliSiemen per centimeter
 mv: millivolts
 NA: not available
 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

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LEGEND

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

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: NEARMAP, AUGUST 3, 2024



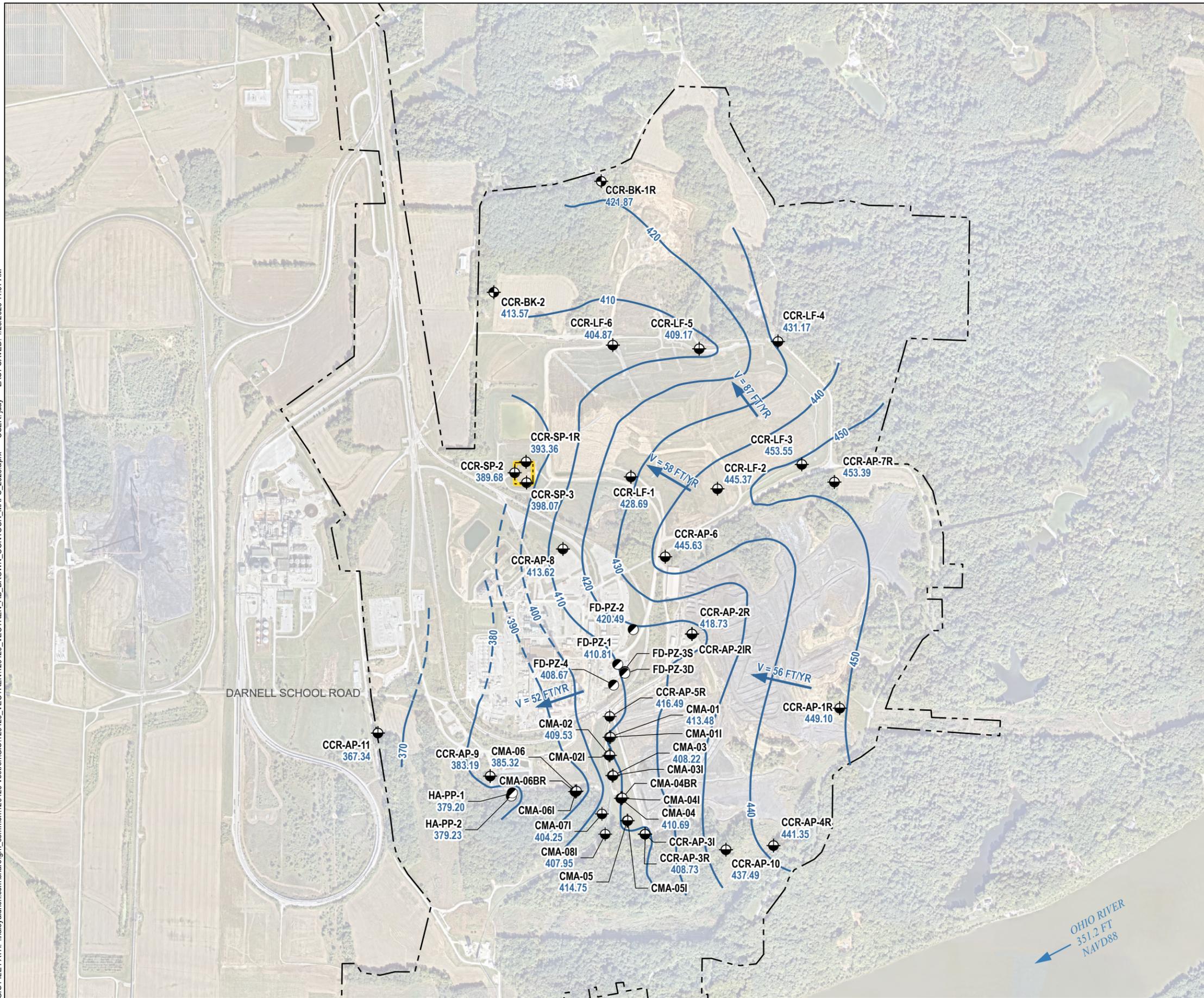
HALEY ALDRICH SEDIMENTATION POND
A. B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

**GROUNDWATER MONITORING
WELL LOCATIONS -
SEDIMENTATION POND**

JANUARY 2026

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\gim\common\129420\Vectren\GIS\129420_VECTREN\AB_BROWN_CONTOUR_MAPS_2025.aprx — USER: jday — LAST SAVED: 1/26/2026 11:07 AM

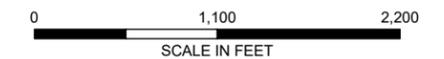


LEGEND

-  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. $V = \frac{k(i)}{n_e}$
 V = GROUNDWATER VELOCITY (FT/YR)
 K = HYDRAULIC CONDUCTIVITY (FT/YR)
 i = GROUNDWATER GRADIENT
 n_e = EFFECTIVE POROSITY
 ND = NO DATA
7. AERIAL IMAGERY SOURCE: NEARMAP, OCTOBER 11, 2025



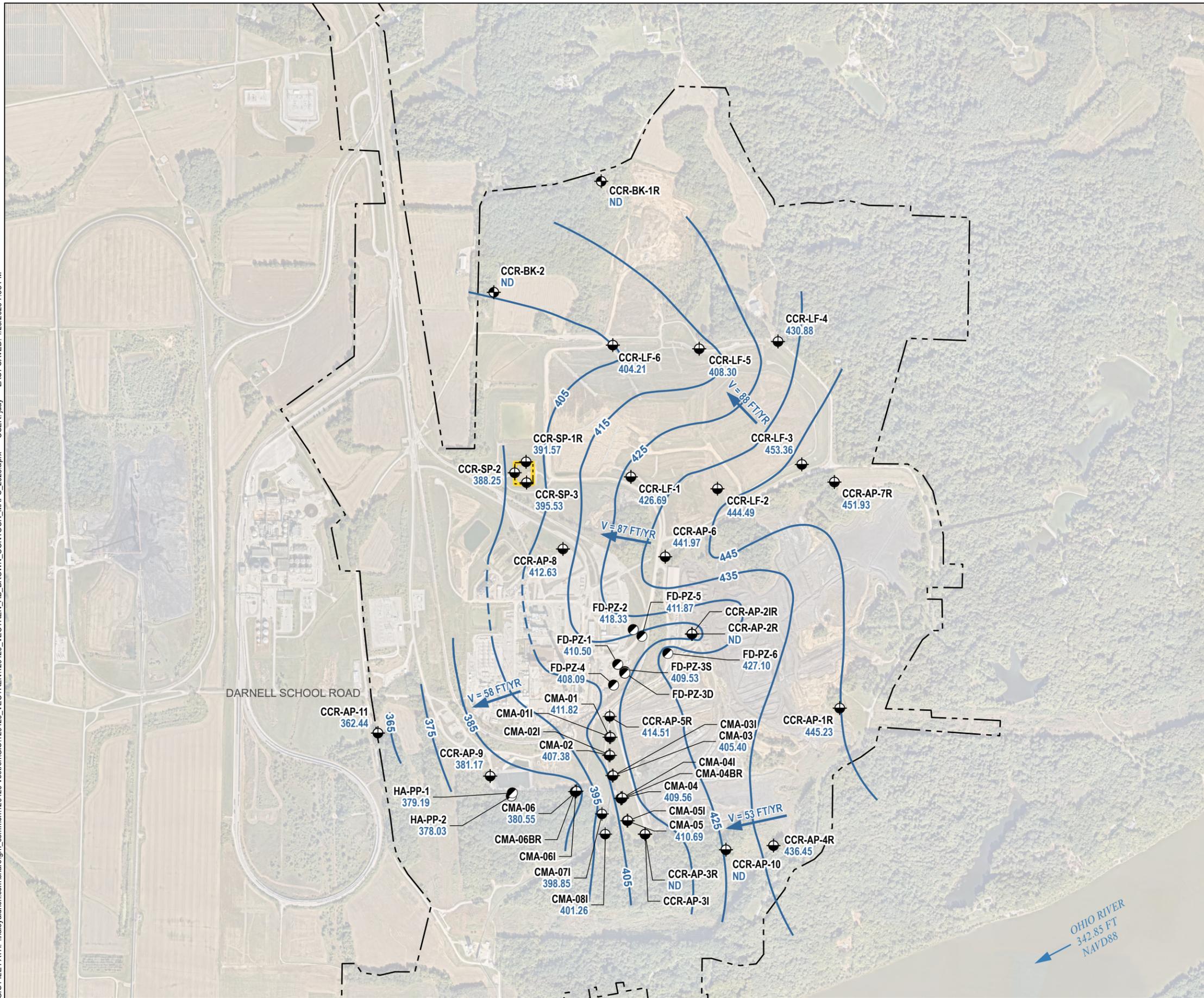
SEDIMENTATION POND
A.B. BROWN GENERATING STATION
POSEY COUNTY, INDIANA

**SHALLOW GROUNDWATER
ELEVATION CONTOURS -
SEDIMENTATION POND -
MAY 5, 2025**

JANUARY 2026

FIGURE 2

GIS FILE PATH: \\haleyaldrich.com\share\gim\common\129420_Vectren\GIS\129420_Vectren_AB_BROWN_CONTOUR_MAPS_2025.aprx — USER: jday — LAST SAVED: 1/23/2026 7:38 PM



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. $V = \frac{k(i)}{n_e}$
 V = GROUNDWATER VELOCITY (FT/YR)
 K = HYDRAULIC CONDUCTIVITY (FT/YR)
 i = GROUNDWATER GRADIENT
 n_e = EFFECTIVE POROSITY
 ND = NO DATA
7. AERIAL IMAGERY SOURCE: NEARMAP, OCTOBER 11, 2025



SEDIMENTATION POND
 A.B. BROWN GENERATING STATION
 POSEY COUNTY, INDIANA

**SHALLOW GROUNDWATER
 ELEVATION CONTOURS -
 SEDIMENTATION POND -
 NOVEMBER 3, 2025**

JANUARY 2026

FIGURE 3

OHIO RIVER
 342.85 FT
 NAVD88

APPENDIX A
Summary of Statistical Analysis



HALEY & ALDRICH, INC.
400 Augusta St.
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, Senior Project Manager
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
Sedimentation Pond
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 Sedimentation Pond. 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 Sediment Pond*. 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 of 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 three downgradient monitoring wells (CCR-SP-1R through CCR-SP-3) were compared to the GWPS established from the background dataset for the two 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 Standard

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. As noted above, the GWPS for each of the Appendix IV constituents have been set equal to the highest value of the MCL, RSL, or BTV (TL). 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.

Note that the CCR unit is in assessment monitoring, so Appendix III (detection monitoring) constituents were not evaluated.

Interwell Background Evaluation

An interwell statistical evaluation was used to determine the TL and identify potential SSLs for detected Appendix IV constituents, except arsenic (Table 1). 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 may serve as an appropriate UTL.

GWPS Comparison and LCL Calculations

The lower confidence limits (LCL) were 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 utilized for downgradient wells and constituents.

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

Enclosure

Table 1 – Trend Summary

Attachment A – Assessment Monitoring Statistical Analysis Summary – November 2024

https://haleyaldrich.sharepoint.com/sites/VectrenCorporation/Shared Documents/0129420.AB Brown/Deliverables/0_Statistical Evaluation/Sedimentation Pond/Nov 2024/SSL Notification Memo/2025-0312-ABB_SP_Statistical Evaluation Summary_D.docx

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 (magnitude per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (magnitude per year)
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	0.001	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	0.001	NA
CCR-SP-1	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	20	0	0.002	NA	8	0	0.001	NA
CCR-SP-2	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.002	NA	8	0	0.001	NA
CCR-SP-3	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.002	NA	8	0	0.001	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	0.0025	NA
CCR-BK-2	Arsenic, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	9	0.005	NA	8	2	0.0027	NA
CCR-SP-1	Arsenic, Total	mg/L	Stable	No Trend	22	22	0.013	NA	8	8	0.0074	NA
CCR-SP-2	Arsenic, Total	mg/L	Increasing	Decreasing	23	22	0.016	0.00028	8	8	0.016	-0.0017
CCR-SP-3	Arsenic, Total	mg/L	Decreasing	Stable	23	23	0.043	-0.00085	8	8	0.0097	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	-0.00133
CCR-SP-1	Barium, Total	mg/L	Decreasing	Stable	22	22	0.12	-0.00225	8	8	0.1	NA
CCR-SP-2	Barium, Total	mg/L	Stable	Increasing	23	23	0.15	NA	8	8	0.15	0.016
CCR-SP-3	Barium, Total	mg/L	No Trend	No Trend	23	23	0.11	NA	8	8	0.084	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	0.0005	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	0.0005	NA
CCR-SP-1	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	20	0	0.001	NA	8	0	0.0005	NA
CCR-SP-2	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.001	NA	8	0	0.0005	NA
CCR-SP-3	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	0.001	NA	8	0	0.0005	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	0.0005	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	0.0005	NA
CCR-SP-1	Cadmium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	20	2	0.001	NA	8	2	0.0005	NA
CCR-SP-2	Cadmium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	2	0.001	NA	8	0	0.0005	NA
CCR-SP-3	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	0.001	NA	8	0	0.0005	NA
CCR-BK-1	Chromium, Total	mg/L	No Trend	Increasing	22	15	0.0076	NA	8	4	0.0029	0.000261
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	0.0047	NA
CCR-SP-1	Chromium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.005	NA	8	0	0.0025	NA
CCR-SP-2	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	6	0.005	NA	8	1	0.0025	NA
CCR-SP-3	Chromium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.0096	NA	8	0	0.0025	NA
CCR-BK-1	Cobalt, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	22	16	0.0028	NA	8	3	0.00072	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-SP-1	Cobalt, Total	mg/L	Increasing	No Trend	22	22	0.01	0.000286	8	8	0.01	NA
CCR-SP-2	Cobalt, Total	mg/L	Stable	No Trend	23	23	0.0021	NA	8	8	0.001	NA
CCR-SP-3	Cobalt, Total	mg/L	Decreasing	Stable	23	23	0.0054	-0.0000188	8	8	0.0011	NA
CCR-BK-1	Fluoride	mg/L	Decreasing	Stable	22	20	0.38	-0.00583	8	7	0.36	NA
CCR-BK-2	Fluoride	mg/L	Stable	Stable	21	18	0.34	NA	8	6	0.34	NA
CCR-SP-1	Fluoride	mg/L	Decreasing	Stable	21	17	0.78	-0.00461	8	7	0.25	NA
CCR-SP-2	Fluoride	mg/L	Decreasing	No Trend	23	22	0.38	-0.00875	8	7	0.26	NA

Abbreviations: CF = confidence factor; 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 (magnitude per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (magnitude per year)
CCR-SP-3	Fluoride	mg/L	Probably Decreasing	Stable	23	21	0.52	NA	8	7	0.41	NA
CCR-BK-1	Lead, Total	mg/L	No Trend	No Trend	23	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	23	8	0.011	NA	8	2	0.0024	NA
CCR-SP-1	Lead, 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	0.00057	NA
CCR-SP-2	Lead, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	22	14	0.001	NA	8	3	0.00095	NA
CCR-SP-3	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	9	0.0061	NA	8	2	0.0005	NA
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	No Trend	24	7	0.05	NA	8	6	0.0043	NA
CCR-SP-1	Lithium, Total	mg/L	Decreasing	Probably Increasing	22	12	0.05	-0.00206	8	8	0.0088	NA
CCR-SP-2	Lithium, Total	mg/L	Decreasing	Increasing	23	13	0.05	-0.0005	8	7	0.0084	0.0005
CCR-SP-3	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	5	0.05	NA	8	3	0.0049	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	0.0001	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	0.0001	NA
CCR-SP-1	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	20	0	0.0002	NA	8	0	0.0001	NA
CCR-SP-2	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.0002	NA	8	0	0.0001	NA
CCR-SP-3	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.0002	NA	8	0	0.0001	NA
CCR-BK-1	Molybdenum, Total	mg/L	Stable	Increasing	22	20	0.005	NA	8	8	0.0025	0.0003
CCR-BK-2	Molybdenum, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	No Trend	23	10	0.005	NA	8	4	0.0025	NA
CCR-SP-1	Molybdenum, Total	mg/L	Decreasing	No Trend	22	21	0.005	-0.00004	8	8	0.0013	NA
CCR-SP-2	Molybdenum, Total	mg/L	Stable	Stable	23	21	0.005	NA	8	8	0.0017	NA
CCR-SP-3	Molybdenum, Total	mg/L	Stable	No Trend	23	22	0.011	NA	8	8	0.011	NA
CCR-BK-1	Radium-226 & 228	pCi/L	Increasing	Stable	20	11	2.46	0.0309	8	5	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	22	5	3.13	NA	8	2	1.37	NA
CCR-SP-1	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	20	7	0.974	NA	8	1	0.676	NA
CCR-SP-2	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	9	0.91	NA	8	1	0.505	NA
CCR-SP-3	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	4	1.07	NA	8	1	0.535	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	0.0027	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	0.0025	NA
CCR-SP-1	Selenium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	20	1	0.005	NA	8	0	0.0025	NA
CCR-SP-2	Selenium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	0.005	NA	8	0	0.0025	NA
CCR-SP-3	Selenium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	0.005	NA	8	0	0.0025	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	0.0005	NA
CCR-BK-2	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	4	0.001	NA	8	2	0.00076	NA

Abbreviations: CF = confidence factor; 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 (magnitude per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (magnitude per year)
CCR-SP-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	20	2	0.001	NA	8	0	0.0005	NA
CCR-SP-2	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	0.0005	NA
CCR-SP-3	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	21	3	0.001	NA	8	1	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 –
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	0.0020	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	0.0020	0.00048	0.00187	0.002	0.00043	1.8e-07	0.002 - 0.002	2016-06-08 to 2024-11-06
CCR-SP-1	Antimony, Total	mg/L	20	20	100	0.0020	0.002	0.002	0.002	0	0	0.002 - 0.002	2016-06-09 to 2024-11-08
CCR-SP-2	Antimony, Total	mg/L	21	21	100	0.0020	0.002	0.002	0.002	0	0	0.002 - 0.002	2016-06-09 to 2024-11-08
CCR-SP-3	Antimony, Total	mg/L	21	21	100	0.0020	0.002	0.002	0.002	0	0	0.002 - 0.002	2016-06-09 to 2024-11-08
Pooled Background	Antimony, Total	mg/L	44	40	91	0.0020	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	0.0050	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	0.0050	0.00031	0.00151	0.001	0.0013	1.8e-06	0.001 - 0.005	2016-06-08 to 2024-11-06
CCR-SP-1	Arsenic, Total	mg/L	22	0	0	0.0130	0.003	0.00497	0.0045	0.0021	4.3e-06	NA	2016-06-09 to 2024-11-08
CCR-SP-2	Arsenic, Total	mg/L	23	1	4	0.0160	0.00027	0.00434	0.0028	0.0046	2.1e-05	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-3	Arsenic, Total	mg/L	23	0	0	0.0430	0.0017	0.0132	0.0085	0.011	0.00012	NA	2016-06-09 to 2024-11-08
Pooled Background	Arsenic, Total	mg/L	45	23	51	0.0050	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	0.0870	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	0.1500	0.032	0.042	0.036	0.024	0.00058	NA	2016-06-08 to 2024-11-06
CCR-SP-1	Barium, Total	mg/L	22	0	0	0.1200	0.034	0.0773	0.082	0.022	0.0005	NA	2016-06-09 to 2024-11-08
CCR-SP-2	Barium, Total	mg/L	23	0	0	0.1500	0.046	0.109	0.12	0.026	0.00067	NA	2016-06-09 to 2024-11-08
CCR-SP-3	Barium, Total	mg/L	23	0	0	0.1100	0.057	0.0736	0.072	0.01	0.0001	NA	2016-06-09 to 2024-11-08
Pooled Background	Barium, Total	mg/L	46	0	0	0.1500	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	0.0010	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	0.0010	0.00018	0.000905	0.001	0.00025	6.2e-08	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-SP-1	Beryllium, Total	mg/L	20	20	100	0.0010	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-2	Beryllium, Total	mg/L	21	21	100	0.0010	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-3	Beryllium, Total	mg/L	21	20	95	0.0010	0.00029	0.000966	0.001	0.00015	2.4e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
Pooled Background	Beryllium, Total	mg/L	44	40	91	0.0010	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	0.0010	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	0.0010	0.00024	0.000967	0.001	0.00016	2.5e-08	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-SP-1	Cadmium, Total	mg/L	20	18	90	0.0010	0.00026	0.000937	0.001	0.0002	3.8e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-2	Cadmium, Total	mg/L	21	19	90	0.0010	9.8e-05	0.000915	0.001	0.00027	7.3e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-3	Cadmium, Total	mg/L	21	20	95	0.0010	0.00015	0.00096	0.001	0.00019	3.4e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
Pooled Background	Cadmium, Total	mg/L	46	44	96	0.0010	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	0.0076	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	0.0087	0.00076	0.00284	0.002	0.0018	3.3e-06	0.002 - 0.005	2016-06-08 to 2024-11-06
CCR-SP-1	Chromium, Total	mg/L	21	21	100	0.0050	0.0017	0.00227	0.002	0.00091	8.3e-07	0.0017 - 0.005	2016-06-09 to 2024-11-08
CCR-SP-2	Chromium, Total	mg/L	22	16	73	0.0050	0.00047	0.00208	0.002	0.001	1.1e-06	0.002 - 0.005	2016-06-09 to 2024-11-08
CCR-SP-3	Chromium, Total	mg/L	22	21	95	0.0096	0.002	0.00264	0.002	0.0018	3.2e-06	0.002 - 0.005	2016-06-09 to 2024-11-08
Pooled Background	Chromium, Total	mg/L	44	23	52	0.0087	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	0.0028	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	0.0062	9.6e-05	0.000835	0.0005	0.0012	1.5e-06	0.0005 - 0.001	2016-06-08 to 2024-11-06
CCR-SP-1	Cobalt, Total	mg/L	22	0	0	0.0100	0.0027	0.0054	0.0057	0.0023	5.4e-06	NA	2016-06-09 to 2024-11-08
CCR-SP-2	Cobalt, Total	mg/L	23	0	0	0.0021	0.00037	0.000941	0.00085	0.00044	2e-07	NA	2016-06-09 to 2024-11-08
CCR-SP-3	Cobalt, Total	mg/L	23	0	0	0.0054	0.00026	0.00091	0.00072	0.001	1e-06	NA	2016-06-09 to 2024-11-08
Pooled Background	Cobalt, Total	mg/L	45	19	42	0.0062	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	0.3800	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	0.3400	0.07	0.156	0.15	0.054	0.0029	0.1 - 0.12	2016-08-10 to 2024-11-06
CCR-SP-1	Fluoride	mg/L	21	4	19	0.7800	0.083	0.241	0.22	0.14	0.019	0.1 - 0.25	2016-08-09 to 2024-11-08
CCR-SP-2	Fluoride	mg/L	23	1	4	0.3800	0.16	0.288	0.32	0.071	0.0051	0.16 - 0.16	2016-06-09 to 2024-11-08
CCR-SP-3	Fluoride	mg/L	23	2	9	0.5200	0.21	0.338	0.33	0.07	0.005	0.25 - 0.26	2016-06-09 to 2024-11-08
Pooled Background	Fluoride	mg/L	43	5	12	0.3800	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	0.0011	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	0.0110	2.8e-05	0.00152	0.001	0.0022	4.7e-06	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-SP-1	Lead, Total	mg/L	21	17	81	0.0010	9.7e-05	0.000861	0.001	0.0003	9.3e-08	0.001 - 0.001	2016-08-09 to 2024-11-08
CCR-SP-2	Lead, Total	mg/L	22	8	36	0.0010	0.00019	0.000772	0.000895	0.00028	7.9e-08	0.001 - 0.001	2016-08-09 to 2024-11-08
CCR-SP-3	Lead, Total	mg/L	22	13	59	0.0061	0.00012	0.000945	0.001	0.0012	1.5e-06	0.001 - 0.001	2016-08-09 to 2024-11-08
Pooled Background	Lead, Total	mg/L	46	20	43	0.0110	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	0.0500	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	24	17	71	0.0500	0.0016	0.0235	0.008	0.023	0.00053	0.005 - 0.05	2016-06-08 to 2024-11-06
CCR-SP-1	Lithium, Total	mg/L	22	10	45	0.0500	0.0036	0.0239	0.0067	0.022	0.0005	0.0064 - 0.05	2016-06-09 to 2024-11-08
CCR-SP-2	Lithium, Total	mg/L	23	10	43	0.0500	0.005	0.0217	0.0073	0.021	0.00045	0.005 - 0.05	2016-06-09 to 2024-11-08
CCR-SP-3	Lithium, Total	mg/L	23	18	78	0.0500	0.0018	0.0222	0.005	0.023	0.00052	0.005 - 0.05	2016-06-09 to 2024-11-08
Pooled Background	Lithium, Total	mg/L	47	32	68	0.0500	0.0016	0.0224	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	0.0002	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	0.0002	0.0001	0.000195	0.0002	2.1e-05	4.5e-10	0.0002 - 0.0002	2016-06-08 to 2024-11-06
CCR-SP-1	Mercury, Total	mg/L	20	20	100	0.0002	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-09 to 2024-11-08
CCR-SP-2	Mercury, Total	mg/L	21	21	100	0.0002	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-09 to 2024-11-08
CCR-SP-3	Mercury, Total	mg/L	21	21	100	0.0002	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-09 to 2024-11-08
Pooled Background	Mercury, Total	mg/L	44	42	95	0.0002	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	0.0050	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	0.0050	0.00051	0.00331	0.005	0.002	4.1e-06	0.005 - 0.005	2016-06-08 to 2024-11-06
CCR-SP-1	Molybdenum, Total	mg/L	22	1	5	0.0050	0.00061	0.00146	0.00125	0.00086	7.4e-07	0.005 - 0.005	2016-06-09 to 2024-11-08
CCR-SP-2	Molybdenum, Total	mg/L	23	2	9	0.0050	0.00089	0.00166	0.0014	0.0011	1.1e-06	0.005 - 0.005	2016-06-09 to 2024-11-08
CCR-SP-3	Molybdenum, Total	mg/L	23	1	4	0.0110	0.0016	0.00439	0.0042	0.0018	3.3e-06	0.005 - 0.005	2016-06-09 to 2024-11-08
Pooled Background	Molybdenum, Total	mg/L	45	15	33	0.0050	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	2.4600	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	3.1300	-0.0961	0.638	0.264	0.87	0.76	-0.0961 - 2.74	2016-06-08 to 2024-11-06
CCR-SP-1	Radium-226 & 228	pCi/L	20	13	65	0.9740	0.0465	0.403	0.465	0.24	0.058	0.0465 - 0.974	2016-06-09 to 2024-11-08
CCR-SP-2	Radium-226 & 228	pCi/L	21	12	57	0.9100	0.241	0.548	0.506	0.21	0.045	0.241 - 0.893	2016-06-09 to 2024-11-08
CCR-SP-3	Radium-226 & 228	pCi/L	22	18	82	1.0700	0.131	0.40					

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	Selenium, Total	mg/L	23	19	83	0.0050	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	0.0050	0.00047	0.00452	0.005	0.0013	1.7e-06	0.005 - 0.005	2016-06-08 to 2024-11-06
CCR-SP-1	Selenium, Total	mg/L	20	19	95	0.0050	0.00036	0.00477	0.005	0.001	1.1e-06	0.005 - 0.005	2016-06-09 to 2024-11-08
CCR-SP-2	Selenium, Total	mg/L	21	20	95	0.0050	0.00063	0.00479	0.005	0.00095	9.1e-07	0.005 - 0.005	2016-06-09 to 2024-11-08
CCR-SP-3	Selenium, Total	mg/L	21	20	95	0.0050	0.00042	0.00478	0.005	0.001	1e-06	0.005 - 0.005	2016-06-09 to 2024-11-08
Pooled Background	Selenium, Total	mg/L	46	39	85	0.0050	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	0.0010	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	0.0010	5.9e-05	0.000872	0.001	0.0003	9.1e-08	0.001 - 0.001	2016-06-08 to 2024-11-06
CCR-SP-1	Thallium, Total	mg/L	20	18	90	0.0010	2.6e-05	0.000906	0.001	0.00029	8.4e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-2	Thallium, Total	mg/L	21	18	86	0.0010	4.9e-05	0.00089	0.001	0.00028	7.9e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
CCR-SP-3	Thallium, Total	mg/L	21	18	86	0.0010	2.4e-05	0.000875	0.001	0.00031	9.9e-08	0.001 - 0.001	2016-06-09 to 2024-11-08
Pooled Background	Thallium, Total	mg/L	44	38	86	0.0010	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-SP-1	Antimony, Total	20	20	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-2	Antimony, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-3	Antimony, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
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-SP-1	Arsenic, Total	22	0	0.675	9.569e-06	Not normal	Not normal
CCR-SP-2	Arsenic, Total	23	1	0.8167	0.0007181	Not normal	Not normal
CCR-SP-3	Arsenic, Total	23	0	0.8481	0.002509	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-SP-1	Barium, Total	22	0	0.9589	0.4674	Normal	Normal
CCR-SP-2	Barium, Total	23	0	0.9533	0.3422	Normal	Normal
CCR-SP-3	Barium, Total	23	0	0.8162	0.0007034	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-SP-1	Beryllium, Total	20	20	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-2	Beryllium, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-3	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-SP-1	Cadmium, Total	20	18	0.2501	3.377e-09	Not normal	Not normal
CCR-SP-2	Cadmium, Total	21	19	0.3433	9.713e-09	Not normal	Not normal
CCR-SP-3	Cadmium, Total	21	20	0.2284	1.401e-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-SP-1	Chromium, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-2	Chromium, Total	22	16	0.6901	1.467e-05	Not normal	Not normal
CCR-SP-3	Chromium, Total	22	21	0.328	4.52e-09	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-SP-1	Cobalt, Total	22	0	0.8972	0.0261	Not normal	Normal
CCR-SP-2	Cobalt, Total	23	0	0.8988	0.02383	Not normal	Normal
CCR-SP-3	Cobalt, Total	23	0	0.4135	1.408e-08	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-SP-1	Fluoride	21	4	0.707	3.365e-05	Not normal	Not normal
CCR-SP-2	Fluoride	23	1	0.9164	0.05573	Normal	Normal
CCR-SP-3	Fluoride	23	2	0.9393	0.1736	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-SP-1	Lead, Total	21	17	0.5073	2.378e-07	Not normal	Not normal
CCR-SP-2	Lead, Total	22	8	0.9163	0.06375	Normal	Normal
CCR-SP-3	Lead, Total	22	13	0.3135	3.497e-09	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	24	17	0.6715	4.326e-06	Not normal	Not normal
CCR-SP-1	Lithium, Total	22	10	0.7046	2.239e-05	Not normal	Not normal
CCR-SP-2	Lithium, Total	23	10	0.7226	2.792e-05	Not normal	Not 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-SP-3	Lithium, Total	23	18	0.6502	3.37e-06	Not normal	Not normal
Pooled Background	Lithium, Total	47	32	0.6992	1.633e-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-SP-1	Mercury, Total	20	20	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-2	Mercury, Total	21	21	NA	NA	Not Evaluated - All Non-Detect Results	Not Evaluated - All Non-Detect Results
CCR-SP-3	Mercury, Total	21	21	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-SP-1	Molybdenum, Total	22	1	0.9237	0.09051	Normal	Normal
CCR-SP-2	Molybdenum, Total	23	2	0.7575	8.627e-05	Not normal	Not normal
CCR-SP-3	Molybdenum, Total	23	1	0.8199	0.0008111	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-SP-1	Radium-226 & 228	20	13	0.9082	0.05885	Normal	Normal
CCR-SP-2	Radium-226 & 228	21	12	0.9194	0.08452	Normal	Normal
CCR-SP-3	Radium-226 & 228	22	18	0.86	0.005132	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-SP-1	Selenium, Total	20	19	0.2359	2.693e-09	Not normal	Not normal
CCR-SP-2	Selenium, Total	21	20	0.2284	1.401e-09	Not normal	Not normal
CCR-SP-3	Selenium, Total	21	20	0.2284	1.401e-09	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-SP-1	Thallium, Total	20	18	0.3592	2.125e-08	Not normal	Not normal
CCR-SP-2	Thallium, Total	21	18	0.3941	2.463e-08	Not normal	Not normal
CCR-SP-3	Thallium, Total	21	18	0.4451	6.586e-08	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	NA
CCR-BK-2	Antimony, Total	22	20	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-1	Antimony, Total	20	20	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Antimony, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-3	Antimony, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
Pooled Background	Antimony, Total	44	40	Rosner	4.798, 4.093, 5.076	NA	3.076, 3.067, 3.057	3	NA	NA
CCR-BK-1	Arsenic, Total	22	9	Dixon	0	0	NA	NA	Yes	NA
CCR-BK-2	Arsenic, Total	23	14	Dixon	0.2589	0.6833	NA	NA	No	NA
CCR-SP-1	Arsenic, Total	22	0	Dixon	0.7021	0	NA	NA	Yes	NA
CCR-SP-2	Arsenic, Total	23	1	Dixon	0.3218	0.3761	NA	NA	No	NA
CCR-SP-3	Arsenic, Total	23	0	Dixon	0.4326	0.08289	NA	NA	No	NA
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	NA
CCR-SP-1	Barium, Total	22	0	Dixon	0.1515	0.6093	NA	NA	No	NA
CCR-SP-2	Barium, Total	23	0	Dixon	0.3723	0.2045	NA	NA	No	NA
CCR-SP-3	Barium, Total	23	0	Dixon	0.6522	0	NA	NA	Yes	NA
Pooled Background	Barium, Total	46	0	Rosner	5.162, 3.484, 3.711	NA	3.094, 3.085, 3.076	3	NA	NA
CCR-BK-1	Beryllium, Total	22	21	Dixon	1	0	NA	NA	Yes	NA
CCR-BK-2	Beryllium, Total	22	19	Dixon	0.6875	0	NA	NA	Yes	NA
CCR-SP-1	Beryllium, Total	20	20	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Beryllium, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-3	Beryllium, Total	21	20	Dixon	1	0	NA	NA	Yes	NA
Pooled Background	Beryllium, Total	44	40	Rosner	4.537, 5.37, 5.513	NA	3.076, 3.067, 3.057	3	NA	NA
CCR-BK-1	Cadmium, Total	23	22	Dixon	1	0	NA	NA	Yes	NA
CCR-BK-2	Cadmium, Total	23	22	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-1	Cadmium, Total	20	18	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-2	Cadmium, Total	21	19	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-3	Cadmium, Total	21	20	Dixon	1	0	NA	NA	Yes	NA
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	NA
CCR-BK-2	Chromium, Total	22	16	Dixon	0.5195	0.0177	NA	NA	Yes	NA
CCR-SP-1	Chromium, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Chromium, Total	22	16	Dixon	0.3333	0.3588	NA	NA	No	NA
CCR-SP-3	Chromium, Total	22	21	Dixon	0.8256	0	NA	NA	Yes	NA
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	NA
CCR-BK-2	Cobalt, Total	23	13	Dixon	0.7705	0	NA	NA	Yes	NA
CCR-SP-1	Cobalt, Total	22	0	Dixon	0.2639	0.6888	NA	NA	No	NA
CCR-SP-2	Cobalt, Total	23	0	Dixon	0.3636	0.2294	NA	NA	No	NA
CCR-SP-3	Cobalt, Total	23	0	Dixon	0.8704	0	NA	NA	Yes	NA
Pooled Background	Cobalt, Total	45	19	Rosner	5.455, 3.97, 3.764	NA	3.085, 3.076, 3.067	3	NA	NA
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	NA
CCR-SP-1	Fluoride	21	4	Dixon	0.7174	0	NA	NA	Yes	NA
CCR-SP-2	Fluoride	23	1	Dixon	0.4138	0.1122	NA	NA	No	NA
CCR-SP-3	Fluoride	23	2	Dixon	0.2982	0.4791	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	NA
CCR-SP-1	Lead, Total	21	17	Dixon	0.2804	0.6355	NA	NA	No	NA
CCR-SP-2	Lead, Total	22	8	Dixon	0.1944	0.8802	NA	NA	No	NA
CCR-SP-3	Lead, Total	22	13	Dixon	0.9412	0	NA	NA	Yes	NA
Pooled Background	Lead, Total	46	20	Rosner	6.228, 3.848, 3.946	NA	3.094, 3.085, 3.076	3	NA	NA
CCR-BK-1	Lithium, Total	23	15	Dixon	0	0	NA	NA	Yes	NA
CCR-BK-2	Lithium, Total	24	17	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-1	Lithium, Total	22	10	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-2	Lithium, Total	23	10	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-3	Lithium, Total	23	18	Dixon	0	0	NA	NA	Yes	NA
Pooled Background	Lithium, Total	47	32	Rosner	1.239, 1.274, 1.312	NA	3.103, 3.094, 3.085	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	NA
CCR-SP-1	Mercury, Total	20	20	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Mercury, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-3	Mercury, Total	21	21	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

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	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-SP-1	Molybdenum, Total	22	1	Dixon	0.3797	0.206	NA	NA	No	NA
CCR-SP-2	Molybdenum, Total	23	2	Dixon	0.6154	0	NA	NA	Yes	NA
CCR-SP-3	Molybdenum, Total	23	1	Dixon	0.6386	0	NA	NA	Yes	NA
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	NA
CCR-BK-2	Radium-226 & 228	22	17	Dixon	0.569	0	NA	NA	Yes	NA
CCR-SP-1	Radium-226 & 228	20	13	Dixon	0.2379	0.9292	NA	NA	No	NA
CCR-SP-2	Radium-226 & 228	21	12	Dixon	0.3405	0.3629	NA	NA	No	NA
CCR-SP-3	Radium-226 & 228	22	18	Dixon	0.07809	0.2004	NA	NA	No	NA
Pooled Background	Radium-226 & 228	42	26	Rosner	3.914, 3.785, 3.538	NA	3.057, 3.047, 3.036	3	NA	NA
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	NA
CCR-SP-1	Selenium, Total	20	19	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-2	Selenium, Total	21	20	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-3	Selenium, Total	21	20	Dixon	1	0	NA	NA	Yes	NA
Pooled Background	Selenium, Total	46	39	Rosner	3.189, 3.489, 4.079	NA	3.094, 3.085, 3.076	3	NA	NA
CCR-BK-1	Thallium, Total	22	20	Dixon	1	0	NA	NA	Yes	NA
CCR-BK-2	Thallium, Total	22	18	Dixon	0.2971	0.5149	NA	NA	No	NA
CCR-SP-1	Thallium, Total	20	18	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-2	Thallium, Total	21	18	Dixon	0.8448	0	NA	NA	Yes	NA
CCR-SP-3	Thallium, Total	21	18	Dixon	0.4118	0.1516	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	NA

Table A-5. Upper Tolerance Limits (UTLs)

Constituent	Units	Interwell Background Data Characterization [a]											Groundwater Protection Standard (GWPS) Determination					UTL Calculation Details		Minimum Coverage (%)			
		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
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
Arsenic, Total	mg/L	45	23	0.005	0.0035	0.0014	0.001	2016-06-08	2024-11-07	0.00131	0.892	No Trend	No Trend	Not normal (Interwell Background)	NA - Original Data	0.005	No	0.01	0.01	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.6
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
Cobalt, Total	mg/L	45	19	0.001	0.0062	0.000783	0.0005	2016-06-08	2024-11-07	0.000985	1.54	No Trend	No Trend	Not normal (Interwell Background)	NA - Original Data	0.0062	Yes	0.006	0.0062	Interwell UTL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.6
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
Lithium, Total	mg/L	47	32	0.05	0.011	0.0224	0.008	2016-06-08	2024-11-07	0.0221	0.884	Decreasing	No Trend	Not normal (Interwell Background)	NA - Original Data	0.05	No	0.04	0.05	Interwell UTL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (non-detects substituted by reporting limit value)	93.8
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.

Table A-6. Confidence Intervals

Location	Constituent	Units	n	Confidence Interval (CI) Dataset					CI Calculation [a]	SSL Confirmation		Non-Parametric CI Statistics (if applicable)			
				max (Rank n)	min (Rank 1)	median	mean	standard deviation		CI calculation method	degrees of freedom	95% Confidence LCL	GWPS	LCL > GWPS?	bootstrap iterations
CCR-SP-1	Cobalt, Total	mg/L	22	0.01	0.0027	0.0057	0.0054	0.0023	Bootstrap Calculation of the Confidence Interval Around the Median (Non-Parametric)	21	0.0032	0.0062	No	10000	0.0047

Note:

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

[a] The 95% lower confidence level (LCL) is compared to the Groundwater Protection Standard (GWPS) to confirm a statistically significant level (SSL). The 99% confidence interval is also shown for purposes of comparison. UCL = upper confidence level.

Table A-7. Groundwater Protection Standard (GWPS) Summary

Background Location	Constituent	Units	Interwell UTL	MCL/RSL	GWPS	GWPS Source	UTL Calculation Method
CCR-BK-1 & CCR-BK-2	Antimony, Total	mg/L	0.002	0.006	0.006	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Arsenic, Total	mg/L	0.005	0.01	0.01	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Barium, Total	mg/L	0.15	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	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	0.005	0.005	MCL/RSL	Maximum reporting limit value, all non-detect results (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Chromium, Total	mg/L	0.0087	0.1	0.1	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Cobalt, Total	mg/L	0.0062	0.006	0.0062	UTL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Fluoride	mg/L	0.38	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	0.015	0.015	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Lithium, Total	mg/L	0.05	0.04	0.05	UTL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)
CCR-BK-1 & CCR-BK-2	Mercury, Total	mg/L	0.0002	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	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	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	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	0.002	0.002	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)

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

Location	Constituent	Units	Sample Date	Sample Result	Interwell UTL	GWPS	GWPS Exceedance	LCL	SSL Confirmed
CCR-SP-1	Antimony, Total	mg/L	2024-11-08	0.002 U	0.002	0.006	No	NA	No
CCR-SP-2	Antimony, Total	mg/L	2024-11-08	0.002 U	0.002	0.006	No	NA	No
CCR-SP-3	Antimony, Total	mg/L	2024-11-08	0.002 U	0.002	0.006	No	NA	No
CCR-SP-1	Arsenic, Total	mg/L	2024-11-08	0.005	0.005	0.01	No	NA	No
CCR-SP-2	Arsenic, Total	mg/L	2024-11-08	0.0032 J	0.005	0.01	No	NA	No
CCR-SP-3	Arsenic, Total	mg/L	2024-11-08	0.0084	0.005	0.01	No	NA	No
CCR-SP-1	Barium, Total	mg/L	2024-11-08	0.034	0.15	2	No	NA	No
CCR-SP-2	Barium, Total	mg/L	2024-11-08	0.12	0.15	2	No	NA	No
CCR-SP-3	Barium, Total	mg/L	2024-11-08	0.084	0.15	2	No	NA	No
CCR-SP-1	Beryllium, Total	mg/L	2024-11-08	0.001 U	0.001	0.004	No	NA	No
CCR-SP-2	Beryllium, Total	mg/L	2024-11-08	0.001 U	0.001	0.004	No	NA	No
CCR-SP-3	Beryllium, Total	mg/L	2024-11-08	0.001 U	0.001	0.004	No	NA	No
CCR-SP-1	Cadmium, Total	mg/L	2024-11-08	0.00026 J	0.001	0.005	No	NA	No
CCR-SP-2	Cadmium, Total	mg/L	2024-11-08	0.001 U	0.001	0.005	No	NA	No
CCR-SP-3	Cadmium, Total	mg/L	2024-11-08	0.001 U	0.001	0.005	No	NA	No
CCR-SP-1	Chromium, Total	mg/L	2024-11-08	0.005 U	0.0087	0.1	No	NA	No
CCR-SP-2	Chromium, Total	mg/L	2024-11-08	0.005 U	0.0087	0.1	No	NA	No
CCR-SP-3	Chromium, Total	mg/L	2024-11-08	0.005 U	0.0087	0.1	No	NA	No
CCR-SP-1	Cobalt, Total	mg/L	2024-11-08	0.01	0.0062	0.0062	Yes	0.0032	No
CCR-SP-2	Cobalt, Total	mg/L	2024-11-08	0.00066 J	0.0062	0.0062	No	NA	No
CCR-SP-3	Cobalt, Total	mg/L	2024-11-08	0.00046 J	0.0062	0.0062	No	NA	No
CCR-SP-1	Fluoride	mg/L	2024-11-08	0.2	0.38	4	No	NA	No
CCR-SP-2	Fluoride	mg/L	2024-11-08	0.23	0.38	4	No	NA	No
CCR-SP-3	Fluoride	mg/L	2024-11-08	0.3	0.38	4	No	NA	No
CCR-SP-1	Lead, Total	mg/L	2024-11-08	0.001 U	0.011	0.015	No	NA	No
CCR-SP-2	Lead, Total	mg/L	2024-11-08	0.001 U	0.011	0.015	No	NA	No
CCR-SP-3	Lead, Total	mg/L	2024-11-08	0.001 U	0.011	0.015	No	NA	No
CCR-SP-1	Lithium, Total	mg/L	2024-11-08	0.0088	0.05	0.05	No	NA	No
CCR-SP-2	Lithium, Total	mg/L	2024-11-08	0.0084	0.05	0.05	No	NA	No
CCR-SP-3	Lithium, Total	mg/L	2024-11-08	0.0049 J	0.05	0.05	No	NA	No
CCR-SP-1	Mercury, Total	mg/L	2024-11-08	0.0002 U	0.0002	0.002	No	NA	No
CCR-SP-2	Mercury, Total	mg/L	2024-11-08	0.0002 U	0.0002	0.002	No	NA	No
CCR-SP-3	Mercury, Total	mg/L	2024-11-08	0.0002 U	0.0002	0.002	No	NA	No
CCR-SP-1	Molybdenum, Total	mg/L	2024-11-08	0.0012 J	0.005	0.1	No	NA	No
CCR-SP-2	Molybdenum, Total	mg/L	2024-11-08	0.0012 J	0.005	0.1	No	NA	No
CCR-SP-3	Molybdenum, Total	mg/L	2024-11-08	0.0044 J	0.005	0.1	No	NA	No
CCR-SP-1	Radium-226 & 228	pCi/L	2024-11-08	0.67 U	3.13	5	No	NA	No
CCR-SP-2	Radium-226 & 228	pCi/L	2024-11-08	0.893 U	3.13	5	No	NA	No
CCR-SP-3	Radium-226 & 228	pCi/L	2024-11-08	0.548 U	3.13	5	No	NA	No
CCR-SP-1	Selenium, Total	mg/L	2024-11-08	0.005 U	0.005	0.05	No	NA	No
CCR-SP-2	Selenium, Total	mg/L	2024-11-08	0.005 U	0.005	0.05	No	NA	No
CCR-SP-3	Selenium, Total	mg/L	2024-11-08	0.005 U	0.005	0.05	No	NA	No
CCR-SP-1	Thallium, Total	mg/L	2024-11-08	0.001 U	0.001	0.002	No	NA	No
CCR-SP-2	Thallium, Total	mg/L	2024-11-08	0.001 U	0.001	0.002	No	NA	No
CCR-SP-3	Thallium, Total	mg/L	2024-11-08	0.001 U	0.001	0.002	No	NA	No



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

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
Sedimentation Pond
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 Sedimentation Pond. 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 Sediment Pond*. 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 of 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 three downgradient monitoring wells (CCR-SP-1R through CCR-SP-3) were compared to the GWPS established from the background dataset for the two 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 Standard

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. As noted above, the GWPS for each of the Appendix IV constituents have been set equal to the highest value of the MCL, RSL, or BTV (TL). 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.

Note that the CCR unit is in assessment monitoring, so Appendix III (detection monitoring) constituents were not evaluated.

Interwell Background Evaluation

An interwell statistical evaluation was used to determine the TL and identify potential SSLs for detected Appendix IV constituents, except arsenic (Table 1). 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 may serve as an appropriate UTL.

GWPS Comparison and LCL Calculations

The lower confidence limits (LCL) were 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.

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 utilized for downgradient wells and constituents.

The results of the statistical analysis conducted for detected Appendix IV constituents confirm that no SSLs greater than the GWPS were identified at the Sedimentation Pond, however, the Sedimentation Pond will remain in Assessment Monitoring.

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.

Enclosure

Table 1 – Trend Summary

Attachment A – Assessment Monitoring Statistical Analysis Summary – May 2025

https://haleyaldrich.sharepoint.com/sites/VectrenCorporation/Shared Documents/0129420.AB Brown/Deliverables/0_Statistical Evaluation/3_Sedimentation Pond/2025 May/SSL Notification Memo/2025-0827-ABB_SP_Statistical Evaluation Summary_D.docx

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 (magnitude per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (magnitude per year)
CCR-BK-1	Antimony, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.002	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	0.002	NA	8	1	0.001	NA
CCR-SP-1	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.002	NA	8	0	0.001	NA
CCR-SP-2	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.002	NA	8	0	0.001	NA
CCR-SP-3	Antimony, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.002	NA	8	0	0.001	NA
CCR-BK-1	Arsenic, Total	mg/L	Increasing	Not Evaluated - Majority of data (>50%) non-detect	23	13	0.005	0.0000143	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	0.005	NA	8	2	0.0027	NA
CCR-SP-1	Arsenic, Total	mg/L	Stable	Probably Increasing	23	23	0.013	NA	8	8	0.0074	NA
CCR-SP-2	Arsenic, Total	mg/L	Increasing	Decreasing	24	23	0.016	0.000212	8	8	0.016	-0.00174
CCR-SP-3	Arsenic, Total	mg/L	Decreasing	Stable	24	24	0.043	-0.000863	8	8	0.0088	NA
CCR-BK-1	Barium, Total	mg/L	Increasing	No Trend	24	24	0.12	0.001	8	8	0.12	NA
CCR-BK-2	Barium, Total	mg/L	Stable	Stable	24	24	0.15	NA	8	8	0.049	NA
CCR-SP-1	Barium, Total	mg/L	Decreasing	Stable	23	23	0.12	-0.00235	8	8	0.1	NA
CCR-SP-2	Barium, Total	mg/L	Stable	Increasing	24	24	0.15	NA	8	8	0.15	0.0142
CCR-SP-3	Barium, Total	mg/L	No Trend	No Trend	24	24	0.11	NA	8	8	0.084	NA
CCR-BK-1	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	23	1	0.001	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	0.001	NA	8	1	0.0005	NA
CCR-SP-1	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.001	NA	8	0	0.0005	NA
CCR-SP-2	Beryllium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.001	NA	8	0	0.0005	NA
CCR-SP-3	Beryllium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.001	NA	8	0	0.0005	NA
CCR-BK-1	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	24	1	0.001	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	0.001	NA	8	1	0.0005	NA
CCR-SP-1	Cadmium, 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	3	0.0005	NA
CCR-SP-2	Cadmium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	22	2	0.001	NA	8	0	0.0005	NA
CCR-SP-3	Cadmium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.001	NA	8	0	0.0005	NA
CCR-BK-1	Chromium, Total	mg/L	No Trend	Increasing	23	15	0.0076	NA	8	4	0.0029	0.000275

Abbreviations: CF = confidence factor; 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 (magnitude per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (magnitude per year)
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-SP-1	Chromium, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.005	NA	8	0	0.0025	NA
CCR-SP-2	Chromium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	6	0.005	NA	8	1	0.0025	NA
CCR-SP-3	Chromium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	23	1	0.0096	NA	8	0	0.0025	NA
CCR-BK-1	Cobalt, Total	mg/L	No Trend	Increasing	23	17	0.0028	NA	8	4	0.00072	0.0000235
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-SP-1	Cobalt, Total	mg/L	Increasing	No Trend	23	23	0.01	0.0003	8	8	0.01	NA
CCR-SP-2	Cobalt, Total	mg/L	No Trend	No Trend	24	24	0.0021	NA	8	8	0.0011	NA
CCR-SP-3	Cobalt, Total	mg/L	Decreasing	Stable	24	24	0.0054	-0.000021	8	8	0.0011	NA
CCR-BK-1	Fluoride	mg/L	Decreasing	Stable	23	21	0.38	-0.007	8	7	0.36	NA
CCR-BK-2	Fluoride	mg/L	Stable	Stable	22	19	0.34	NA	8	6	0.34	NA
CCR-SP-1	Fluoride	mg/L	Stable	No Trend	22	18	0.78	NA	8	7	0.28	NA
CCR-SP-2	Fluoride	mg/L	Decreasing	No Trend	24	23	0.45	-0.00769	8	7	0.45	NA
CCR-SP-3	Fluoride	mg/L	Decreasing	Stable	24	22	0.52	-0.00487	8	7	0.41	NA
CCR-BK-1	Lead, Total	mg/L	No Trend	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-SP-1	Lead, 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	0.00057	NA
CCR-SP-2	Lead, Total	mg/L	No Trend	Not Evaluated - Majority of data (>50%) non-detect	23	14	0.001	NA	8	3	0.00095	NA
CCR-SP-3	Lead, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	23	9	0.0061	NA	8	2	0.0005	NA
CCR-BK-1	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Probably Increasing	24	9	0.05	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	0.05	NA	8	5	0.0043	NA
CCR-SP-1	Lithium, Total	mg/L	Decreasing	No Trend	23	13	0.05	-0.00196	8	8	0.0088	NA
CCR-SP-2	Lithium, Total	mg/L	Decreasing	No Trend	24	14	0.05	-0.000483	8	8	0.0084	NA
CCR-SP-3	Lithium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Probably Increasing	24	6	0.05	NA	8	4	0.0049	NA
CCR-BK-1	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	23	0	0.0002	NA	8	0	0.0001	NA
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-SP-1	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	21	0	0.0002	NA	8	0	0.0001	NA
CCR-SP-2	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0002	NA	8	0	0.0001	NA
CCR-SP-3	Mercury, Total	mg/L	Not Evaluated - No detected results	Not Evaluated - No detected results	22	0	0.0002	NA	8	0	0.0001	NA

Abbreviations: CF = confidence factor; 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 (magnitude per year)	*Results, n	*Detected Results, n	*Max Concentration	*Sen Slope (magnitude per year)
CCR-BK-1	Molybdenum, Total	mg/L	Stable	Increasing	23	21	0.005	NA	8	8	0.0025	0.0003
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	0.005	NA	8	3	0.0025	NA
CCR-SP-1	Molybdenum, Total	mg/L	Decreasing	No Trend	23	22	0.005	-0.0000333	8	8	0.0013	NA
CCR-SP-2	Molybdenum, Total	mg/L	Stable	Stable	24	22	0.005	NA	8	8	0.0017	NA
CCR-SP-3	Molybdenum, Total	mg/L	Probably Decreasing	Stable	24	23	0.011	NA	8	8	0.011	NA
CCR-BK-1	Radium-226 & 228	pCi/L	Increasing	Stable	21	11	2.46	0.0233	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-SP-1	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	21	8	1.19	NA	8	2	1.19	NA
CCR-SP-2	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	10	0.91	NA	8	1	0.728	NA
CCR-SP-3	Radium-226 & 228	pCi/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	23	4	1.07	NA	8	1	0.535	NA
CCR-BK-1	Selenium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	24	4	0.005	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	0.005	NA	8	1	0.0025	NA
CCR-SP-1	Selenium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	21	1	0.005	NA	8	0	0.0025	NA
CCR-SP-2	Selenium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.005	NA	8	0	0.0025	NA
CCR-SP-3	Selenium, Total	mg/L	Not Evaluated - Only one detected result	Not Evaluated - No detected results	22	1	0.005	NA	8	0	0.0025	NA
CCR-BK-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	23	2	0.001	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	0.001	NA	8	2	0.00076	NA
CCR-SP-1	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	21	2	0.001	NA	8	0	0.0005	NA
CCR-SP-2	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	22	3	0.001	NA	8	2	0.0005	NA
CCR-SP-3	Thallium, Total	mg/L	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	22	3	0.001	NA	8	1	0.0005	NA

Abbreviations: CF = confidence factor; 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	0.0020	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	0.0020	0.00048	0.00187	0.002	0.00042	1.7e-07	0.002 - 0.002	2016-06-08 to 2025-05-07
CCR-SP-1	Antimony, Total	mg/L	21	21	100	0.0020	0.002	0.002	0.002	0	0	0.002 - 0.002	2016-06-09 to 2025-05-08
CCR-SP-2	Antimony, Total	mg/L	22	22	100	0.0020	0.002	0.002	0.002	0	0	0.002 - 0.002	2016-06-09 to 2025-05-08
CCR-SP-3	Antimony, Total	mg/L	22	22	100	0.0020	0.002	0.002	0.002	0	0	0.002 - 0.002	2016-06-09 to 2025-05-08
Pooled Background	Antimony, Total	mg/L	46	42	91	0.0020	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	0.0050	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	0.0050	0.00031	0.00166	0.001	0.0015	2.2e-06	0.001 - 0.005	2016-06-08 to 2025-05-07
CCR-SP-1	Arsenic, Total	mg/L	23	0	0	0.0130	0.003	0.00497	0.0045	0.002	4.1e-06	NA	2016-06-09 to 2025-05-08
CCR-SP-2	Arsenic, Total	mg/L	24	1	4	0.0160	0.00027	0.00426	0.0026	0.0045	2e-05	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-3	Arsenic, Total	mg/L	24	0	0	0.0430	0.00076	0.0127	0.0085	0.011	0.00012	NA	2016-06-09 to 2025-05-08
Pooled Background	Arsenic, Total	mg/L	47	25	53	0.0050	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	0.1200	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	0.1500	0.032	0.0418	0.0355	0.024	0.00056	NA	2016-06-08 to 2025-05-07
CCR-SP-1	Barium, Total	mg/L	23	0	0	0.1200	0.034	0.0757	0.081	0.023	0.00054	NA	2016-06-09 to 2025-05-08
CCR-SP-2	Barium, Total	mg/L	24	0	0	0.1500	0.046	0.109	0.115	0.025	0.00064	NA	2016-06-09 to 2025-05-08
CCR-SP-3	Barium, Total	mg/L	24	0	0	0.1100	0.057	0.074	0.073	0.01	9.9e-05	NA	2016-06-09 to 2025-05-08
Pooled Background	Barium, Total	mg/L	48	0	0	0.1500	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	0.0010	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	0.0010	0.00018	0.000909	0.001	0.00024	5.9e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-SP-1	Beryllium, Total	mg/L	21	21	100	0.0010	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-2	Beryllium, Total	mg/L	22	22	100	0.0010	0.001	0.001	0.001	0	0	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-3	Beryllium, Total	mg/L	22	21	95	0.0010	0.00029	0.000968	0.001	0.00015	2.3e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
Pooled Background	Beryllium, Total	mg/L	46	42	91	0.0010	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	0.0010	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	0.0010	0.00024	0.000968	0.001	0.00016	2.4e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-SP-1	Cadmium, Total	mg/L	21	18	86	0.0010	0.00026	0.00091	0.001	0.00023	5.2e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-2	Cadmium, Total	mg/L	22	20	91	0.0010	9.8e-05	0.000919	0.001	0.00026	7e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-3	Cadmium, Total	mg/L	22	21	95	0.0010	0.00015	0.000961	0.001	0.00018	3.3e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
Pooled Background	Cadmium, Total	mg/L	48	46	96	0.0010	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	0.0076	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	0.0087	0.00076	0.00293	0.002	0.0018	3.4e-06	0.002 - 0.005	2016-06-08 to 2025-05-07
CCR-SP-1	Chromium, Total	mg/L	22	22	100	0.0050	0.0017	0.0024	0.002	0.0011	1.1e-06	0.0017 - 0.005	2016-06-09 to 2025-05-08
CCR-SP-2	Chromium, Total	mg/L	23	17	74	0.0050	0.00047	0.00221	0.002	0.0012	1.4e-06	0.002 - 0.005	2016-06-09 to 2025-05-08
CCR-SP-3	Chromium, Total	mg/L	23	22	96	0.0096	0.002	0.00274	0.002	0.0018	3.3e-06	0.002 - 0.005	2016-06-09 to 2025-05-08
Pooled Background	Chromium, Total	mg/L	46	25	54	0.0087	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	0.0028	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	0.0062	9.6e-05	0.000841	0.0005	0.0012	1.5e-06	0.0005 - 0.001	2016-06-08 to 2025-05-07
CCR-SP-1	Cobalt, Total	mg/L	23	0	0	0.0100	0.0027	0.00557	0.0062	0.0024	5.8e-06	NA	2016-06-09 to 2025-05-08
CCR-SP-2	Cobalt, Total	mg/L	24	0	0	0.0021	0.00037	0.000947	0.000855	0.00044	1.9e-07	NA	2016-06-09 to 2025-05-08
CCR-SP-3	Cobalt, Total	mg/L	24	0	0	0.0054	0.0002	0.00088	0.000695	0.00099	9.8e-07	NA	2016-06-09 to 2025-05-08
Pooled Background	Cobalt, Total	mg/L	47	20	43	0.0062	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	0.3800	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	0.3400	0.07	0.154	0.145	0.053	0.0028	0.1 - 0.12	2016-08-10 to 2025-05-07
CCR-SP-1	Fluoride	mg/L	22	4	18	0.7800	0.083	0.243	0.23	0.13	0.018	0.1 - 0.25	2016-08-09 to 2025-05-08
CCR-SP-2	Fluoride	mg/L	24	1	4	0.4500	0.16	0.295	0.32	0.077	0.0059	0.16 - 0.16	2016-06-09 to 2025-05-08
CCR-SP-3	Fluoride	mg/L	24	2	8	0.5200	0.2	0.332	0.33	0.074	0.0055	0.25 - 0.26	2016-06-09 to 2025-05-08
Pooled Background	Fluoride	mg/L	45	5	11	0.3800	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	0.0011	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	0.0110	2.8e-05	0.0015	0.001	0.0021	4.5e-06	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-SP-1	Lead, Total	mg/L	22	18	82	0.0010	9.7e-05	0.000867	0.001	0.0003	8.9e-08	0.001 - 0.001	2016-08-09 to 2025-05-08
CCR-SP-2	Lead, Total	mg/L	23	9	39	0.0010	0.00019	0.000782	0.00091	0.00028	7.7e-08	0.001 - 0.001	2016-08-09 to 2025-05-08
CCR-SP-3	Lead, Total	mg/L	23	14	61	0.0061	0.00012	0.000947	0.001	0.0012	1.4e-06	0.001 - 0.001	2016-08-09 to 2025-05-08
Pooled Background	Lead, Total	mg/L	48	22	46	0.0110	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	0.0500	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	0.0500	0.0016	0.0237	0.008	0.023	0.00052	0.005 - 0.05	2016-06-08 to 2025-05-07
CCR-SP-1	Lithium, Total	mg/L	23	10	43	0.0500	0.0036	0.023	0.0066	0.022	0.00049	0.0064 - 0.05	2016-06-09 to 2025-05-08
CCR-SP-2	Lithium, Total	mg/L	24	10	42	0.0500	0.0044	0.021	0.00715	0.021	0.00044	0.005 - 0.05	2016-06-09 to 2025-05-08
CCR-SP-3	Lithium, Total	mg/L	24	18	75	0.0500	0.0018	0.0215	0.005	0.023	0.00051	0.005 - 0.05	2016-06-09 to 2025-05-08
Pooled Background	Lithium, Total	mg/L	48	33	69	0.0500	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	0.0002	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	0.0002	0.0001	0.000196	0.0002	2.1e-05	4.3e-10	0.0002 - 0.0002	2016-06-08 to 2025-05-07
CCR-SP-1	Mercury, Total	mg/L	21	21	100	0.0002	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-09 to 2025-05-08
CCR-SP-2	Mercury, Total	mg/L	22	22	100	0.0002	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-09 to 2025-05-08
CCR-SP-3	Mercury, Total	mg/L	22	22	100	0.0002	0.0002	0.0002	0.0002	0	0	0.0002 - 0.0002	2016-06-09 to 2025-05-08
Pooled Background	Mercury, Total	mg/L	46	44	96	0.0002	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	0.0050	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	0.0050	0.00051	0.00338	0.005	0.002	4e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-SP-1	Molybdenum, Total	mg/L	23	1	4	0.0050	0.00061	0.00145	0.0013	0.00084	7.1e-07	0.005 - 0.005	2016-06-09 to 2025-05-08
CCR-SP-2	Molybdenum, Total	mg/L	24	2	8	0.0050	0.00089	0.00164	0.00135	0.001	1.1e-06	0.005 - 0.005	2016-06-09 to 2025-05-08
CCR-SP-3	Molybdenum, Total	mg/L	24	1	4	0.0110	0.0016	0.00432	0.00415	0.0018	3.3e-06	0.005 - 0.005	2016-06-09 to 2025-05-08
Pooled Background	Molybdenum, Total	mg/L	47	16	34	0.0050	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	2.4600	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	3.1300	-0.0961	0.615	0.217	0.86	0.74	-0.0961 - 2.74	2016-06-08 to 2025-05-07
CCR-SP-1	Radium-226 & 228	pCi/L	21	13	62	1.1900	0.0465	0.441	0.474	0.29	0.084	0.0465 - 0.974	2016-06-09 to 2025-05-08
CCR-SP-2	Radium-226 & 228	pCi/L	22	12	55	0.9100	0.241	0.556	0.514	0.21	0.044	0.241 - 0.893	2016-06-09 to 2025-05-08
CCR-SP-3	Radium-226 & 228	pCi/L	23	19	83	1.0700	0.						

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	Selenium, Total	mg/L	24	20	83	0.0050	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	0.0050	0.00047	0.00454	0.005	0.0013	1.7e-06	0.005 - 0.005	2016-06-08 to 2025-05-07
CCR-SP-1	Selenium, Total	mg/L	21	20	95	0.0050	0.00036	0.00478	0.005	0.001	1e-06	0.005 - 0.005	2016-06-09 to 2025-05-08
CCR-SP-2	Selenium, Total	mg/L	22	21	95	0.0050	0.00063	0.0048	0.005	0.00093	8.7e-07	0.005 - 0.005	2016-06-09 to 2025-05-08
CCR-SP-3	Selenium, Total	mg/L	22	21	95	0.0050	0.00042	0.00479	0.005	0.00098	9.5e-07	0.005 - 0.005	2016-06-09 to 2025-05-08
Pooled Background	Selenium, Total	mg/L	48	41	85	0.0050	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	0.0010	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	0.0010	5.9e-05	0.000878	0.001	0.0003	8.8e-08	0.001 - 0.001	2016-06-08 to 2025-05-07
CCR-SP-1	Thallium, Total	mg/L	21	19	90	0.0010	2.6e-05	0.00091	0.001	0.00028	8e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-2	Thallium, Total	mg/L	22	19	86	0.0010	4.9e-05	0.000895	0.001	0.00028	7.6e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
CCR-SP-3	Thallium, Total	mg/L	22	19	86	0.0010	2.4e-05	0.000881	0.001	0.00031	9.5e-08	0.001 - 0.001	2016-06-09 to 2025-05-08
Pooled Background	Thallium, Total	mg/L	46	40	87	0.0010	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)			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-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-SP-1	Antimony, Total	21	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Antimony, Total	22	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Antimony, Total	22	22	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-SP-1	Arsenic, Total	23	0	0.6722	6.237e-06	Not normal	0.872	0.006996	Not lognormal	Not normal
CCR-SP-2	Arsenic, Total	24	1	0.8111	0.0004507	Not normal	0.9588	0.414	Lognormal	Lognormal
CCR-SP-3	Arsenic, Total	24	0	0.8541	0.002612	Not normal	0.969	0.6419	Lognormal	Lognormal
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-SP-1	Barium, Total	23	0	0.9525	0.3289	Normal	0.9155	0.05336	Lognormal	Normal
CCR-SP-2	Barium, Total	24	0	0.9574	0.3888	Normal	0.8862	0.01111	Lognormal	Normal
CCR-SP-3	Barium, Total	24	0	0.8404	0.001459	Not normal	0.909	0.03349	Lognormal	Lognormal
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-SP-1	Beryllium, Total	21	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Beryllium, Total	22	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	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
CCR-SP-1	Cadmium, Total	21	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Cadmium, Total	22	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Cadmium, Total	22	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	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-SP-1	Chromium, Total	22	22	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-SP-2	Chromium, Total	23	17	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Chromium, Total	23	22	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-SP-1	Cobalt, Total	23	0	0.8993	0.0245	Normal	0.8833	0.01164	Lognormal	Normal
CCR-SP-2	Cobalt, Total	24	0	0.9065	0.0297	Normal	0.9737	0.7581	Lognormal	Normal
CCR-SP-3	Cobalt, Total	24	0	0.4288	1.229e-08	Not normal	0.8562	0.002851	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-SP-1	Fluoride	22	4	0.7083	2.504e-05	Not normal	0.9039	0.03561	Lognormal	Lognormal
CCR-SP-2	Fluoride	24	1	0.9577	0.3935	Normal	0.8436	0.00167	Not lognormal	Normal
CCR-SP-3	Fluoride	24	2	0.9515	0.2914	Normal	0.8644	0.004088	Not 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-SP-1	Lead, Total	22	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Lead, Total	23	9	0.9093	0.03954	Normal	0.9109	0.04271	Lognormal	Normal
CCR-SP-3	Lead, Total	23	14	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
CCR-BK-2	Lithium, Total	24	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-1	Lithium, Total	23	10	0.6998	1.393e-05	Not normal	0.7888	0.0002551	Not lognormal	Not normal
CCR-SP-2	Lithium, Total	24	10	0.7196	1.847e-05	Not normal	0.8382	0.001331	Not lognormal	Not normal
CCR-SP-3	Lithium, Total	24	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not 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-SP-1	Mercury, Total	21	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Mercury, Total	22	22	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Mercury, Total	22	22	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-SP-1	Molybdenum, Total	23	1	0.9204	0.06811	Normal	0.9688	0.6613	Lognormal	Normal
CCR-SP-2	Molybdenum, Total	24	2	0.7503	5.023e-05	Not normal	0.8486	0.00206	Not lognormal	Not normal
CCR-SP-3	Molybdenum, Total	24	1	0.8183	0.0005956	Not normal	0.9671	0.5966	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

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	Radium-226 & 228	23	18	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-1	Radium-226 & 228	21	13	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Radium-226 & 228	22	12	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Radium-226 & 228	23	19	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-SP-1	Selenium, Total	21	20	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Selenium, Total	22	21	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Selenium, Total	22	21	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-SP-1	Thallium, Total	21	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-2	Thallium, Total	22	19	NA	NA	Not Evaluated - Majority (>50% ND)	NA	NA	Not Evaluated - Majority (>50% ND)	Not normal
CCR-SP-3	Thallium, Total	22	19	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	NA
CCR-BK-2	Antimony, Total	23	21	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-1	Antimony, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Antimony, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-3	Antimony, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
Pooled Background	Antimony, Total	46	42	Rosner	4.912, 4.194, 5.203	NA	3.094, 3.085, 3.076	3	NA	NA
CCR-BK-1	Arsenic, Total	23	10	Dixon	0	0	NA	NA	Yes	NA
CCR-BK-2	Arsenic, Total	24	15	Dixon	0.2589	0.6477	NA	NA	No	NA
CCR-SP-1	Arsenic, Total	23	0	Dixon	0.7021	0	NA	NA	Yes	NA
CCR-SP-2	Arsenic, Total	24	1	Dixon	0.3218	0.352	NA	NA	No	NA
CCR-SP-3	Arsenic, Total	24	0	Dixon	0.4208	0.08769	NA	NA	No	NA
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	NA
CCR-SP-1	Barium, Total	23	0	Dixon	0.2597	0.6785	NA	NA	No	NA
CCR-SP-2	Barium, Total	24	0	Dixon	0.3723	0.1858	NA	NA	No	NA
CCR-SP-3	Barium, Total	24	0	Dixon	0.587	0	NA	NA	Yes	NA
Pooled Background	Barium, Total	48	0	Rosner	4.559, 4.476, 3.525	NA	3.112, 3.103, 3.094	3	NA	NA
CCR-BK-1	Beryllium, Total	23	22	Dixon	1	0	NA	NA	Yes	NA
CCR-BK-2	Beryllium, Total	23	20	Dixon	0.6875	0	NA	NA	Yes	NA
CCR-SP-1	Beryllium, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Beryllium, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-3	Beryllium, Total	22	21	Dixon	1	0	NA	NA	Yes	NA
Pooled Background	Beryllium, Total	46	42	Rosner	4.645, 5.5, 5.65	NA	3.094, 3.085, 3.076	3	NA	NA
CCR-BK-1	Cadmium, Total	24	23	Dixon	1	0	NA	NA	Yes	NA
CCR-BK-2	Cadmium, Total	24	23	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-1	Cadmium, Total	21	18	Dixon	0.9583	0	NA	NA	Yes	NA
CCR-SP-2	Cadmium, Total	22	20	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-3	Cadmium, Total	22	21	Dixon	1	0	NA	NA	Yes	NA
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	NA
CCR-BK-2	Chromium, Total	23	17	Dixon	0.5195	0.01428	NA	NA	Yes	NA
CCR-SP-1	Chromium, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Chromium, Total	23	17	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-3	Chromium, Total	23	22	Dixon	0.8256	0	NA	NA	Yes	NA
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	NA
CCR-BK-2	Cobalt, Total	24	14	Dixon	0.7705	0	NA	NA	Yes	NA
CCR-SP-1	Cobalt, Total	23	0	Dixon	0.125	0.4705	NA	NA	No	NA
CCR-SP-2	Cobalt, Total	24	0	Dixon	0.3636	0.2093	NA	NA	No	NA
CCR-SP-3	Cobalt, Total	24	0	Dixon	0.8704	0	NA	NA	Yes	NA
Pooled Background	Cobalt, Total	47	20	Rosner	5.58, 4.065, 3.854	NA	3.103, 3.094, 3.085	3	NA	NA
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	NA
CCR-SP-1	Fluoride	22	4	Dixon	0.7174	0	NA	NA	Yes	NA
CCR-SP-2	Fluoride	24	1	Dixon	0.4	0.1234	NA	NA	No	NA
CCR-SP-3	Fluoride	24	2	Dixon	0.3438	0.2715	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	NA
CCR-SP-1	Lead, Total	22	18	Dixon	0.2804	0.5979	NA	NA	No	NA
CCR-SP-2	Lead, Total	23	9	Dixon	0.1944	0.9167	NA	NA	No	NA
CCR-SP-3	Lead, Total	23	14	Dixon	0.9412	0	NA	NA	Yes	NA
Pooled Background	Lead, Total	48	22	Rosner	6.368, 3.939, 4.041	NA	3.112, 3.103, 3.094	3	NA	NA
CCR-BK-1	Lithium, Total	24	15	Dixon	0	0	NA	NA	Yes	NA
CCR-BK-2	Lithium, Total	24	18	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-1	Lithium, Total	23	10	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-2	Lithium, Total	24	10	Dixon	0	0	NA	NA	Yes	NA
CCR-SP-3	Lithium, Total	24	18	Dixon	0	0	NA	NA	Yes	NA
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	NA
CCR-SP-1	Mercury, Total	21	21	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-2	Mercury, Total	22	22	Dixon	All results are non-detect	NA	NA	NA	NA	NA
CCR-SP-3	Mercury, Total	22	22	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

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-2	Molybdenum, Total	24	14	Dixon	0.0603	0.1433	NA	NA	No	NA
CCR-SP-1	Molybdenum, Total	23	1	Dixon	0.3797	0.1851	NA	NA	No	NA
CCR-SP-2	Molybdenum, Total	24	2	Dixon	0.6154	0	NA	NA	Yes	NA
CCR-SP-3	Molybdenum, Total	24	1	Dixon	0.631	0	NA	NA	Yes	NA
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	NA
CCR-BK-2	Radium-226 & 228	23	18	Dixon	0.569	0	NA	NA	Yes	NA
CCR-SP-1	Radium-226 & 228	21	13	Dixon	0.5772	0.0002965	NA	NA	Yes	NA
CCR-SP-2	Radium-226 & 228	22	12	Dixon	0.2356	0.8575	NA	NA	No	NA
CCR-SP-3	Radium-226 & 228	23	19	Dixon	0.07668	0.2077	NA	NA	No	NA
Pooled Background	Radium-226 & 228	44	28	Rosner	4.004, 3.874, 3.623	NA	3.076, 3.067, 3.057	3	NA	NA
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	NA
CCR-SP-1	Selenium, Total	21	20	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-2	Selenium, Total	22	21	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-3	Selenium, Total	22	21	Dixon	1	0	NA	NA	Yes	NA
Pooled Background	Selenium, Total	48	41	Rosner	3.266, 3.574, 4.178	NA	3.112, 3.103, 3.094	3	NA	NA
CCR-BK-1	Thallium, Total	23	21	Dixon	1	0	NA	NA	Yes	NA
CCR-BK-2	Thallium, Total	23	19	Dixon	0.2971	0.4847	NA	NA	No	NA
CCR-SP-1	Thallium, Total	21	19	Dixon	1	0	NA	NA	Yes	NA
CCR-SP-2	Thallium, Total	22	19	Dixon	0.8448	0	NA	NA	Yes	NA
CCR-SP-3	Thallium, Total	22	19	Dixon	0.4118	0.1323	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	NA

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)							Thiel-Sen Test (R programming, package = trend, version = 1.1.6, function = sens.slope, non-detects substituted by 0.5*reporting limit)						
Location	Constituent	Mann Kendall Trends		Seasonal Mann Kendall Used	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 = trend, version = 1.1.6, function = sens.slope, 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 = trend, version = 1.1.6, function = sens.slope, non-detects substituted by 0.5*reporting limit)							
		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 (mg/L per year)	p-value	n, detected results	recent data date range	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope (mg/L per year)	p-value				
CCR-BK-1	Antimony, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	No	23	2	0.274	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-07	0	NA	NA	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	No	23	2	0.223	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-07	0.141	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-1	Antimony, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	21	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-05-21 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-2	Antimony, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	22	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-3	Antimony, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	22	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	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	No	46	4	0.247	NA	NA	NA	NA	NA	NA	8	1	NA	0.141	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Arsenic, Total	Increasing	Not Evaluated - Majority of data (>50%) non-detect	No	23	13	1.53	0.326	0.0383	96.2	78	0.0000143	0.0383	8	2	2021-11-18 to 2025-05-07	0.765	NA	NA	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	No	24	9	0.903	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-07	0.663	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-1	Arsenic, Total	Stable	Probably Increasing	No	23	23	0.406	-0.0802	0.615	38.5	-20	-0.0000125	0.615	8	8	2021-05-21 to 2025-05-08	0.277	0.546	0.0809	91.9	15	0.000208	0.0809			
CCR-SP-2	Arsenic, Total	Increasing	Decreasing	No	24	23	1.06	0.453	0.00225	99.8	124	0.000212	0.00225	8	8	2021-11-18 to 2025-05-08	0.618	-0.929	0.00198	99.8	-26	-0.00174	0.00198			
CCR-SP-3	Arsenic, Total	Decreasing	Stable	No	24	24	0.859	-0.47	0.00148	99.9	-129	-0.000863	0.00148	8	8	2021-11-18 to 2025-05-08	0.525	-0.327	0.319	68.1	-9	-0.000643	0.319			
Pooled Background	Arsenic, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	47	22	0.951	NA	NA	NA	NA	NA	NA	8	3	NA	0.596	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-1	Barium, Total	Increasing	No Trend	No	24	24	0.457	0.343	0.022	97.8	93	0.001	0.022	8	8	2021-11-18 to 2025-05-07	0.41	0.473	0.135	86.5	13	0.0112	0.135			
CCR-BK-2	Barium, Total	Stable	Stable	No	24	24	0.566	-0.221	0.147	85.3	-59	-0.000148	0.147	8	8	2021-11-18 to 2025-05-07	0.156	-0.463	0.158	84.2	-12	-0.0007	0.158			
CCR-SP-1	Barium, Total	Decreasing	Stable	No	23	23	0.307	-0.434	0.00428	99.6	-109	-0.00235	0.00428	8	8	2021-05-21 to 2025-05-08	0.43	-0.357	0.266	73.4	-10	-0.0018	0.266			
CCR-SP-2	Barium, Total	Stable	Increasing	No	24	24	0.232	-0.0113	0.96	4	-3	0	0.96	8	8	2021-11-18 to 2025-05-08	0.249	0.618	0.0461	95.4	17	0.0142	0.0461			
CCR-SP-3	Barium, Total	No Trend	No Trend	No	24	24	0.135	0.0924	0.55	45	25	0.000167	0.55	8	8	2021-11-18 to 2025-05-08	0.102	0.255	0.454	54.6	7	0.00107	0.454			
Pooled Background	Barium, Total	No Trend	No Trend	No	48	48	0.508	0.0635	0.538	46.2	70	0.0000394	0.538	8	8	NA	0.562	0.0741	0.9	10	2	0.00025	0.9			
CCR-BK-1	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	23	1	0.191	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-07	0	NA	NA	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	No	23	3	0.268	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-07	0.133	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-1	Beryllium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	21	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-05-21 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-2	Beryllium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	22	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-3	Beryllium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	22	1	0.156	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	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	No	46	4	0.23	NA	NA	NA	NA	NA	NA	8	1	NA	0.133	NA	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	No	24	1	0.193	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-07	0.323	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-BK-2	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - Only one detected result	No	24	1	0.16	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-07	0.197	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-1	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	21	3	0.251	NA	NA	NA	NA	NA	NA	8	3	2021-05-21 to 2025-05-08	0.202	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-2	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	No	22	2	0.287	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
CCR-SP-3	Cadmium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	22	1	0.189	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pooled Background	Cadmium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	48	2	0.175	NA	NA	NA	NA	NA	NA	8	2	NA	0.385	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note:
Mann Kendall Trends are classified based on Aziz (2003) guidance.

Location	Constituent	Mann Kendall Trends		Seasonal Mann Kendall Used	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 = trend, version = 1.1.6, function = sens.slope, 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 = trend, version = 1.1.6, function = sens.slope, non-detects substituted by 0.5*reporting limit)				
		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 (mg/L per year)	p-value	n	n, detected results	recent data date range	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope (mg/L per year)	p-value
CCR-BK-1	Chromium, Total	No Trend	Increasing	No	23	15	0.784	0.135	0.393	60.7	33	0.00002	0.393	8	4	2021-11-18 to 2025-05-07	0.39	0.667	0.0327	96.7	18	0.000275	0.0327
CCR-BK-2	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	23	6	0.624	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-07	0.621	NA	NA	NA	NA	NA	NA
CCR-SP-1	Chromium, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	22	0	0.443	NA	NA	NA	NA	NA	NA	8	0	2021-05-21 to 2025-05-08	0.497	NA	NA	NA	NA	NA	NA
CCR-SP-2	Chromium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	No	23	6	0.53	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-08	0.458	NA	NA	NA	NA	NA	NA
CCR-SP-3	Chromium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	23	1	0.66	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0.497	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	No	46	21	0.629	NA	NA	NA	NA	NA	NA	8	3	NA	0.331	NA	NA	NA	NA	NA	NA
CCR-BK-1	Cobalt, Total	No Trend	Increasing	No	23	17	1.01	-0.252	0.105	89.5	-62	-0.00002	0.105	8	4	2021-11-18 to 2025-05-07	0.498	0.718	0.0219	97.8	19	0.0000235	0.0219
CCR-BK-2	Cobalt, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	24	10	1.44	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-07	0.799	NA	NA	NA	NA	NA	NA
CCR-SP-1	Cobalt, Total	Increasing	No Trend	No	23	23	0.433	0.541	0.000357	100	136	0.0003	0.000357	8	8	2021-05-21 to 2025-05-08	0.284	0.429	0.174	82.6	12	0.00061	0.174
CCR-SP-2	Cobalt, Total	No Trend	No Trend	No	24	24	0.46	0.0292	0.862	13.8	8	0.00000885	0.862	8	8	2021-11-18 to 2025-05-08	0.247	0.5	0.108	89.2	14	0.0000529	0.108
CCR-SP-3	Cobalt, Total	Decreasing	Stable	No	24	24	1.13	-0.365	0.0139	98.6	-100	-0.000021	0.0139	8	8	2021-11-18 to 2025-05-08	0.486	-0.429	0.174	82.6	-12	-0.0000513	0.174
Pooled Background	Cobalt, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	No	47	27	1.48	-0.0569	0.598	40.2	-57	0	0.598	8	3	NA	0.359	NA	NA	NA	NA	NA	NA
CCR-BK-1	Fluoride	Decreasing	Stable	No	23	21	0.261	-0.414	0.00733	99.3	-102	-0.007	0.00733	8	7	2021-11-18 to 2025-05-07	0.398	-0.416	0.203	79.7	-11	-0.0187	0.203
CCR-BK-2	Fluoride	Stable	Stable	No	22	19	0.364	-0.103	0.532	46.8	-23	-0.000909	0.532	8	6	2021-11-18 to 2025-05-07	0.606	-0.286	0.386	61.4	-8	-0.00917	0.386
CCR-SP-1	Fluoride	Stable	No Trend	No	22	18	0.587	-0.253	0.112	88.8	-57	-0.00375	0.112	8	7	2021-05-21 to 2025-05-08	0.336	0.286	0.386	61.4	8	0.00708	0.386
CCR-SP-2	Fluoride	Decreasing	No Trend	No	24	23	0.264	-0.495	0.000933	99.9	-134	-0.00769	0.000933	8	7	2021-11-18 to 2025-05-08	0.462	0.214	0.536	46.4	6	0.0217	0.536
CCR-SP-3	Fluoride	Decreasing	Stable	No	24	22	0.232	-0.327	0.0301	97	-88	-0.00487	0.0301	8	7	2021-11-18 to 2025-05-08	0.297	-0.296	0.379	62.1	-8	-0.0125	0.379
Pooled Background	Fluoride	Stable	Stable	No	45	40	0.437	-0.167	0.112	88.8	-163	-0.00147	0.112	8	8	NA	0.256	-0.34	0.308	69.2	-9	-0.00583	0.308
CCR-BK-1	Lead, Total	No Trend	Probably Increasing	No	24	18	0.773	0.187	0.22	78	50	0.00000791	0.22	8	4	2021-11-18 to 2025-05-07	0.356	0.564	0.0842	91.6	14	0.0000465	0.0842
CCR-BK-2	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	24	8	1.42	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-07	0.898	NA	NA	NA	NA	NA	NA
CCR-SP-1	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	22	4	0.345	NA	NA	NA	NA	NA	NA	8	2	2021-05-21 to 2025-05-08	0.23	NA	NA	NA	NA	NA	NA
CCR-SP-2	Lead, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	No	23	14	0.474	0.235	0.14	86	55	0.00000409	0.14	8	3	2021-11-18 to 2025-05-08	0.277	NA	NA	NA	NA	NA	NA
CCR-SP-3	Lead, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	23	9	1.25	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-08	0.271	NA	NA	NA	NA	NA	NA
Pooled Background	Lead, Total	No Trend	Not Evaluated - Majority of data (>50%) non-detect	No	48	26	1.91	0.114	0.286	71.4	115	0	0.286	8	3	NA	0.148	NA	NA	NA	NA	NA	NA
CCR-BK-1	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	Probably Increasing	No	24	9	1	NA	NA	NA	NA	NA	NA	8	6	2021-11-18 to 2025-05-07	0.684	0.546	0.0809	91.9	15	0.0019	0.0809
CCR-BK-2	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	No Trend	No	24	6	0.958	NA	NA	NA	NA	NA	NA	8	5	2021-11-18 to 2025-05-07	0.352	0.0378	1	0	1	0	1
CCR-SP-1	Lithium, Total	Decreasing	No Trend	No	23	13	1.69	-0.53	0.000781	99.9	-124	-0.00196	0.000781	8	8	2021-05-21 to 2025-05-08	0.297	0.5	0.108	89.2	14	0.000362	0.108
CCR-SP-2	Lithium, Total	Decreasing	No Trend	No	24	14	1.69	-0.642	0.0000259	100	-167	-0.000483	0.0000259	8	8	2021-11-18 to 2025-05-08	0.204	0.109	0.803	19.7	3	0.000035	0.803
CCR-SP-3	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	Probably Increasing	No	24	6	1.05	NA	NA	NA	NA	NA	NA	8	4	2021-11-18 to 2025-05-08	0.358	0.624	0.0624	93.8	14	0.000238	0.0624
Pooled Background	Lithium, Total	Not Evaluated - Majority of data (>50%) non-detect	No Trend	No	48	15	0.971	NA	NA	NA	NA	NA	NA	8	4	NA	0.79	0.242	0.507	49.3	6	0.00005	0.507
CCR-BK-1	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	23	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-07	0	NA	NA	NA	NA	NA	NA
CCR-BK-2	Mercury, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	No	23	2	0.107	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-07	0	NA	NA	NA	NA	NA	NA

Note:
Mann Kendall Trends are classified based on Aziz (2003) guidance.

Location	Constituent	Mann Kendall Trends		Seasonal Mann Kendall Used	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 = trend, version = 1.1.6, function = sens.slope, 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 = trend, version = 1.1.6, function = sens.slope, non-detects substituted by 0.5*reporting limit)		
		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 (mg/L per year)	p-value	n	n, detected results	recent data date range	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope (mg/L per year)	p-value					
CCR-SP-1	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	21	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-05-21 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-2	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	22	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-3	Mercury, Total	Not Evaluated - No detected results	Not Evaluated - No detected results	No	22	0	0	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Pooled Background	Mercury, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	No	46	2	0.0745	NA	NA	NA	NA	NA	NA	8	0	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-BK-1	Molybdenum, Total	Stable	Increasing	No	23	21	0.753	-0.176	0.255	74.5	-44	-0.00005	0.255	8	8	2021-11-18 to 2025-05-07	0.392	0.857	0.00443	99.6	24	0.0003	0.00443					
CCR-BK-2	Molybdenum, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	24	10	0.593	NA	NA	NA	NA	NA	NA	8	3	2021-11-18 to 2025-05-07	0.456	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-1	Molybdenum, Total	Decreasing	No Trend	No	23	22	0.629	-0.532	0.000588	99.9	-130	-0.0000333	0.000588	8	8	2021-05-21 to 2025-05-08	0.224	0.327	0.319	68.1	9	0.0000464	0.319					
CCR-SP-2	Molybdenum, Total	Stable	Stable	No	24	22	0.732	-0.181	0.252	74.8	-46	-0.0000576	0.252	8	8	2021-11-18 to 2025-05-08	0.192	-0.182	0.618	38.2	-5	-0.0000268	0.618					
CCR-SP-3	Molybdenum, Total	Probably Decreasing	Stable	No	24	23	0.431	-0.249	0.0959	90.4	-68	-0.0000732	0.0959	8	8	2021-11-18 to 2025-05-08	0.577	-0.189	0.61	39	-5	-0.000121	0.61					
Pooled Background	Molybdenum, Total	No Trend	No Trend	No	47	31	1.03	-0.0919	0.388	61.2	-93	0	0.388	8	5	NA	0.226	0.322	0.352	64.8	8	0.0000458	0.352					
CCR-BK-1	Radium-226 & 228	Increasing	Stable	No	21	11	1.04	0.419	0.00861	99.1	88	0.0233	0.00861	8	4	2021-11-18 to 2025-05-07	0.967	-0.5	0.108	89.2	-14	-0.212	0.108					
CCR-BK-2	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	23	5	1.4	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-07	1.07	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-1	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	21	8	0.659	NA	NA	NA	NA	NA	NA	8	2	2021-05-21 to 2025-05-08	1.02	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-2	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	No	22	10	0.379	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-08	0.529	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-3	Radium-226 & 228	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	No	23	4	0.622	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-08	0.661	NA	NA	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	No	44	16	1.18	NA	NA	NA	NA	NA	NA	8	3	NA	0.794	NA	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	No	24	4	0.357	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-07	0.028	NA	NA	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	No	24	3	0.284	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-07	0.0142	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-1	Selenium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	21	1	0.212	NA	NA	NA	NA	NA	NA	8	0	2021-05-21 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-2	Selenium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	22	1	0.194	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-3	Selenium, Total	Not Evaluated - Only one detected result	Not Evaluated - No detected results	No	22	1	0.204	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Pooled Background	Selenium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	48	7	0.319	NA	NA	NA	NA	NA	NA	8	2	NA	0.0332	NA	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	No	23	2	0.266	NA	NA	NA	NA	NA	NA	8	0	2021-11-18 to 2025-05-07	0	NA	NA	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	No	23	4	0.337	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-07	0.309	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-1	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - No detected results	No	21	2	0.311	NA	NA	NA	NA	NA	NA	8	0	2021-05-21 to 2025-05-08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-2	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Majority of data (>50%) non-detect	No	22	3	0.308	NA	NA	NA	NA	NA	NA	8	2	2021-11-18 to 2025-05-08	0.216	NA	NA	NA	NA	NA	NA	NA	NA	NA		
CCR-SP-3	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	No	22	3	0.349	NA	NA	NA	NA	NA	NA	8	1	2021-11-18 to 2025-05-08	0.213	NA	NA	NA	NA	NA	NA	NA	NA	NA		

Note:
Mann Kendall Trends are classified based on Aziz (2003) guidance.

Location	Constituent	Mann Kendall Trends		Seasonal Mann Kendall Used	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 = trend, version = 1.1.6, function = sens.slope, 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 = trend, version = 1.1.6, function = sens.slope, non-detects substituted by 0.5*reporting limit)	
		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 (mg/L per year)	p-value	n	n, detected results	recent data date range	Coefficient of Variance	Kendall's Tau	p-value	Confidence Factor	Kendall Score (S)	Sen Slope (mg/L per year)	p-value	
Pooled Background	Thallium, Total	Not Evaluated - Majority of data (>50%) non-detect	Not Evaluated - Only one detected result	No	46	6	0.3	NA	NA	NA	NA	NA	NA	8	1	NA	0.173	NA	NA	NA	NA	NA	NA	

Note:
Mann Kendall test run on seasonally adjusted data if seasonal trend identified. Seasonal trends identified based on Kruskal Wallis test and time series plots, where n seasons = 4 and (Dec-Feb, Mar-May, Jun-Aug, Sept-Nov).

Note:
Mann Kendall Trends are classified based on Aziz (2003) guidance.

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

Constituent	Units	n	n, non-detects	Interwell Background Data Characterization [a]										Groundwater Protection Standard (GWPS) Determination					UTL Calculation Details		Minimum Coverage (%)	
				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-Franca) [b]	normalizing data transformation (if any)	UTL	UTL Result Detection Status [c]	MCL/RSL	GWPS	GWPS Source	UTL calculation method		UTL calculation details
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
Arsenic, Total	mg/L	47	25	0.005	0.0035	0.00156	0.001	2016-06-08	2025-05-07	0.00148	0.951	More than 50% NDs	Non-Parametric	NA - Original Data	0.005	No	0.01	0.01	MCL/RSL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.8
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
Cobalt, Total	mg/L	47	20	0.001	0.0062	0.000779	0.0005	2016-06-08	2025-05-07	0.000966	1.24	No Trend	Non-Parametric	NA - Original Data	0.0062	Yes	0.006	0.0062	UTL	Non-Parametric Tolerance Limits (USEPA, 2009 - Chapter 17.2.2)	Maximum Value (ND = RL, Non-discriminatory of detection status)	93.8
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
Lithium, Total	mg/L	48	33	0.05	0.016	0.0224	0.008	2016-06-08	2025-05-07	0.0217	0.971	More than 50% NDs	Non-Parametric	NA - Original Data	0.05	No	0.04	0.05	UTL	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. Confidence Intervals & SSL Identification, Assessment Monitoring

Location	Constituent	Units	Confidence Interval (CI) Dataset							Overall Trend	Recent (8) Trend	Data handling	CI dataset distribution	CI Calculation [a]			SSL Confirmation		Non-Parametric CI Statistics	
			n	max (Rank n)	min (Rank 1)	median	mean	standard deviation	degrees of freedom					95% Confidence UCL	95% Confidence LCL	GWPS	LCL > GWPS?	bootstrap iterations	bootstrap median	
CCR-SP-1	Cobalt, Total	mg/L	8	0.01	0.0042	0.00745	0.00736	0.00209	Increasing	No Trend	Overall data trend, LCL calculation on recent (8) data	Normal	Calculation of the Confidence Interval Around the Normal Mean (Parametric)	7	0.00911	0.00561	0.0062	No	NA	NA

Note:

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

[a] The 95% lower confidence level (LCL) is compared to the Groundwater Protection Standard (GWPS) to confirm a statistically significant level (SSL). The 95% upper confidence level (UCL) is also shown for purposes of comparison.

Table A-7. Groundwater Protection Standard (GWPS) Comparison Table

Location	Constituent	Units	Sample Date	Sample Result	Upper Threshold Limit (UTL)	GWPS	GWPS Exceedance	LCL	SSL Confirmed
CCR-SP-1	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	0.006	No	NA	No
CCR-SP-2	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	0.006	No	NA	No
CCR-SP-3	Antimony, Total	mg/L	2025-05-08	0.002 U	0.002	0.006	No	NA	No
CCR-SP-1	Arsenic, Total	mg/L	2025-05-08	0.005	0.005	0.01	No	NA	No
CCR-SP-2	Arsenic, Total	mg/L	2025-05-08	0.0024 J	0.005	0.01	No	NA	No
CCR-SP-3	Arsenic, Total	mg/L	2025-05-08	0.00076 J	0.005	0.01	No	NA	No
CCR-SP-1	Barium, Total	mg/L	2025-05-08	0.04	0.15	2	No	NA	No
CCR-SP-2	Barium, Total	mg/L	2025-05-08	0.11	0.15	2	No	NA	No
CCR-SP-3	Barium, Total	mg/L	2025-05-08	0.083	0.15	2	No	NA	No
CCR-SP-1	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	0.004	No	NA	No
CCR-SP-2	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	0.004	No	NA	No
CCR-SP-3	Beryllium, Total	mg/L	2025-05-08	0.001 U	0.001	0.004	No	NA	No
CCR-SP-1	Cadmium, Total	mg/L	2025-05-08	0.00036 J	0.001	0.005	No	NA	No
CCR-SP-2	Cadmium, Total	mg/L	2025-05-08	0.001 U	0.001	0.005	No	NA	No
CCR-SP-3	Cadmium, Total	mg/L	2025-05-08	0.001 U	0.001	0.005	No	NA	No
CCR-SP-1	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	0.1	No	NA	No
CCR-SP-2	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	0.1	No	NA	No
CCR-SP-3	Chromium, Total	mg/L	2025-05-08	0.005 U	0.0087	0.1	No	NA	No
CCR-SP-1	Cobalt, Total	mg/L	2025-05-08	0.0091	0.0062	0.0062	Yes	0.00561	No
CCR-SP-2	Cobalt, Total	mg/L	2025-05-08	0.0011	0.0062	0.0062	No	NA	No
CCR-SP-3	Cobalt, Total	mg/L	2025-05-08	0.0002 J	0.0062	0.0062	No	NA	No
CCR-SP-1	Fluoride	mg/L	2025-05-08	0.28	0.38	4	No	NA	No
CCR-SP-2	Fluoride	mg/L	2025-05-08	0.45	0.38	4	No	NA	No
CCR-SP-3	Fluoride	mg/L	2025-05-08	0.2 J	0.38	4	No	NA	No
CCR-SP-1	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	0.015	No	NA	No
CCR-SP-2	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	0.015	No	NA	No
CCR-SP-3	Lead, Total	mg/L	2025-05-08	0.001 U	0.011	0.015	No	NA	No
CCR-SP-1	Lithium, Total	mg/L	2025-05-08	0.005 J	0.05	0.05	No	NA	No
CCR-SP-2	Lithium, Total	mg/L	2025-05-08	0.0044 J	0.05	0.05	No	NA	No
CCR-SP-3	Lithium, Total	mg/L	2025-05-08	0.0042 J	0.05	0.05	No	NA	No
CCR-SP-1	Mercury, Total	mg/L	2025-05-08	0.0002 U	0.0002	0.002	No	NA	No
CCR-SP-2	Mercury, Total	mg/L	2025-05-08	0.0002 U	0.0002	0.002	No	NA	No
CCR-SP-3	Mercury, Total	mg/L	2025-05-08	0.0002 U	0.0002	0.002	No	NA	No
CCR-SP-1	Molybdenum, Total	mg/L	2025-05-08	0.0013 J	0.005	0.1	No	NA	No
CCR-SP-2	Molybdenum, Total	mg/L	2025-05-08	0.0013 J	0.005	0.1	No	NA	No
CCR-SP-3	Molybdenum, Total	mg/L	2025-05-08	0.0026 J	0.005	0.1	No	NA	No
CCR-SP-1	Radium-226 & 228	pCi/L	2025-05-08	1.19 J	3.13	5	No	NA	No
CCR-SP-2	Radium-226 & 228	pCi/L	2025-05-08	0.728 J	3.13	5	No	NA	No
CCR-SP-3	Radium-226 & 228	pCi/L	2025-05-08	0.108 U	3.13	5	No	NA	No
CCR-SP-1	Selenium, Total	mg/L	2025-05-08	0.005 U	0.005	0.05	No	NA	No
CCR-SP-2	Selenium, Total	mg/L	2025-05-08	0.005 U	0.005	0.05	No	NA	No
CCR-SP-3	Selenium, Total	mg/L	2025-05-08	0.005 U	0.005	0.05	No	NA	No
CCR-SP-1	Thallium, Total	mg/L	2025-05-08	0.001 U	0.001	0.002	No	NA	No
CCR-SP-2	Thallium, Total	mg/L	2025-05-08	0.001 U	0.001	0.002	No	NA	No
CCR-SP-3	Thallium, Total	mg/L	2025-05-08	0.001 U	0.001	0.002	No	NA	No

Groundwater Protection Standard (GWPS) is the maximum value between the Upper Threshold Limit (UTL) and the Maximum Contaminant Level/Regional Screening Level (MCL/RSL). The 95% Lower Confidence Limit (LCL) is calculated if the event sample result exceeded the GWPS. If the LCL is greater than the GWPS, a Statistically Significant Level (SSL) is confirmed.

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
Project:		AB Brown		Client: SIGECO				File Number: 0129420-035-001-01				Rev (06-09-09)
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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. F.Reed
SAMPLING DATE 05/08/25

Sampling Data: Well Depth as Built: 20.27 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-1R Well Depth Measured: NA ft Initial Depth To Water: 10.88 ft Field Parameter Device: Horiba U-52
 Start time: 9:38 Depth To Top Of Screen: 10.27 ft Depth Of Pump Intake: 15 ft Tubing Present In Well: Yes No
 Finish Time: 10:35 Depth To Bottom Of Scree 20.27 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]	
9:38	10.98	220	220	0.2	15.85	6.66	3.80	3.09	309	-1	
9:43	11.06	220	220	1.8	15.52	6.60	3.47	1.24	115	-45	
9:48	11.08	220	220	2.9	15.32	6.59	3.47	0.75	35.3	-61	
9:53	11.11	200	200	3.9	15.30	6.59	3.49	0.6	25.4	-65	
9:58	11.12	200	200	4.9	15.29	6.59	3.49	0.51	23.4	-66	
10:03	11.12	200	200	5.9	15.32	6.59	3.50	0.45	22	-65	
10:08	11.12	200	200	6.9	15.30	6.59	3.50	0.41	20.1	-65	
10:13	11.12	200	200	7.9	15.29	6.58	3.50	0.38	17.2	-64	
10:18	11.12	200	200	8.9	15.35	6.58	3.49	0.36	15.5	-63	
10:23	11.12	200	200	9.9	15.44	6.58	3.50	0.34	14.3	-62	
10:28	11.12	200	200	10.9	15.44	6.58	3.50	0.33	13.6	-62	
10:33	11.12	200	200	11.9	15.40	6.58	3.50	0.31	12.9	-61	
											Sample ID: CCR-SP-1R-050825
											Sample Time: 10:35
											12.2 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. F.Reed
SAMPLING DATE 05/08/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-2 Well Depth Measured: NA ft Initial Depth To Water: 13.48 ft Field Parameter Device: Horiba U-52
 Start time: 11:11 Depth To Top Of Screen: 10.00 ft Depth Of Pump Intake: NA ft Tubing Present In Well: Yes No
 Finish Time: 12:05 Depth To Bottom Of Scree 20.00 ft Measuring Point: Top of Casing (TOC) Tubing Type: Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/minr)	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]	
11:11	13.88	180	180	0.2	15.68	6.76	1.68	2.60	7.2	-52	
11:16	14.05	180	180	1.3	15.74	6.74	1.67	1.13	5.9	-59	
11:21	14.14	180	180	2.0	15.91	6.71	1.64	0.61	6.4	-54	
11:26	14.27	180	180	2.9	15.95	6.71	1.64	0.46	5.6	-55	
11:31	14.32	180	180	3.7	16.00	6.71	1.66	0.40	4.9	-62	
11:36	14.4	180	180	4.2	15.97	6.71	1.68	0.38	4.7	-66	
11:41	14.48	180	180	5.0	15.89	6.71	1.70	0.35	4.9	-67	
11:46	14.54	180	180	5.8	15.84	6.70	1.72	0.32	4.2	-67	
11:51	14.59	180	180	6.5	15.90	6.69	1.73	0.30	4.0	-65	
11:56	14.59	180	180	7.1	15.92	6.69	1.75	0.28	4.0	-65	
11:59	14.62	180	180	7.9	16.04	6.69	1.76	0.27	4.0	-64	
											Sample ID: CCR-SP-2-050825
											Sample Time: 12:05
											8.8 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. F.Reed
SAMPLING DATE 05/08/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-3 Well Depth Measured: NA ft Initial Depth To Water: 5.98 ft Field Parameter Device: Horiba U-52
 Start time: 12:45 Depth To Top Of Screen: 10.0 ft Depth Of Pump Intake: _____ ft Tubing Present In Well: Yes No
 Finish Time: 13:50 Depth To Bottom Of Scree 20.0 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)	Temperature (°C)	pH	Conductivity (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]	
12:45	6.92	240	240	0.6	15.13	6.94	0.656	1.49	53.4	70	
12:50	6.99	240	240	1.9	15.09	6.89	0.650	0.56	42.4	86	
12:55	7.13	240	240	3.0	15.06	6.90	0.649	0.44	26.4	92	
13:00	7.25	240	240	4.0	15.07	6.90	0.651	0.42	18.1	95	
13:05	7.35	200	200	5.0	15.07	6.89	0.657	0.45	11.1	5	
13:10	7.40	200	200	6.0	15.05	6.91	0.662	0.48	8.7	95	
13:15	7.47	200	200	7.0	15.02	6.91	0.668	0.53	6.1	93	
13:20	7.50	200	200	8.0	14.96	6.90	0.675	0.58	4.4	91	
13:25	7.52	200	200	9.0	14.97	6.90	0.682	0.63	3.9	89	
13:30	7.59	200	200	10.0	14.89	6.91	0.691	0.68	3.3	86	
13:35	7.57	200	200	11.0	14.88	6.91	0.702	0.74	2.6	84	
13:40	7.60	200	200	12.0	14.82	6.90	0.710	0.77	2.6	82	
13:43	7.60	200	200	12.6	14.85	6.91	0.717	0.8	2.6	79	
13:46	7.60	200	200	13.2	14.84	6.89	0.725	0.83	2.2	79	
											Sample ID: CCR-SP-3-050825
											Sample Time: 13:50
											14 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. O. Alston
SAMPLING DATE 11/04/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-2 Well Depth Measured: NM ft Initial Depth To Water: 15.07 ft Field Parameter Device: Horiba U-52
 Start time: 8:00 Depth To Top Of Screen: 10.00 ft Depth Of Pump Intake: 16.6 ft Tubing Present In Well: Yes No
 Finish Time: 9:55 Depth To Bottom Of Scree 20.00 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)	Temperature (°C)	pH	Conductivity (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]		
8:00	15.44	120	120	0.8	17.66	6.78	1.68	2.15	2.1	93	
8:05	15.6	100	100	1.4	17.96	6.82	1.67	1.93	2.5	39	
8:10	15.6	100	100	1.8	18.19	6.84	1.67	1.82	2.9	17	
8:15	15.6	100	100	2.1	18.27	6.86	1.68	1.75	2.2	7	
8:20	15.6	100	100	2.6	18.37	6.86	1.69	1.71	2	1	
8:25	15.6	100	100	3.1	18.54	6.86	1.71	1.68	1.6	-4	
8:30	15.78	100	100	3.7	18.71	6.87	1.72	1.63	1.8	-6	
8:35	15.78	100	100	4.1	18.87	6.88	1.73	1.61	1.3	-9	
8:40	15.78	100	100	4.5	19.08	6.89	1.74	1.57	1.3	-12	
											Sample ID: CCR-SP-2-110425
											Smample Time: 08:50
											Finished Sampling 09:38

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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. O. Alston
SAMPLING DATE 11/04/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-3 Well Depth Measured: NM ft Initial Depth To Water: 8.17 ft Field Parameter Device: Horiba U-52
 Start time: 11:30 Depth To Top Of Screen: 10.0 ft Depth Of Pump Intake: NM ft Tubing Present In Well: Yes No
 Finish Time: 13:23 Depth To Bottom Of Scree 20.0 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]	
11:40	8.67	160	160	0.8	19.7	7.52	0.613	1.42	31.7	22	
11:45	8.67	140	140	1.7	19.66	7.3	0.534	1.32	8.3	-36	
11:50	8.67	140	140	2.5	19.65	7.26	0.524	1.25	4.3	-48	
11:55	9.11	140	140	3.1	19.65	7.22	0.518	1.2	2.1	-54	
12:00	9.11	120	120	3.4	19.64	7.24	0.516	1.18	1.1	-57	
12:05	9.17	120	120	4	19.61	7.23	0.515	1.18	1	-59	
12:10	9.23	120	120	4.4	19.58	7.21	0.515	1.19	1.4	-58	
											Sample ID: CCR-SP-3-110425
											Smaple Time: 12:25
											Finished Sampling 13:23
											Field Dup: DUP-1-110425

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 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. F.Reed
SAMPLING DATE 05/08/25

Sampling Data: Well Depth as Built: 20.27 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-1R Well Depth Measured: NA ft Initial Depth To Water: 10.88 ft Field Parameter Device: Horiba U-52
 Start time: 9:38 Depth To Top Of Screen: 10.27 ft Depth Of Pump Intake: 15 ft Tubing Present In Well: Yes No
 Finish Time: 10:35 Depth To Bottom Of Scree 20.27 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]	
9:38	10.98	220	220	0.2	15.85	6.66	3.80	3.09	309	-1	
9:43	11.06	220	220	1.8	15.52	6.60	3.47	1.24	115	-45	
9:48	11.08	220	220	2.9	15.32	6.59	3.47	0.75	35.3	-61	
9:53	11.11	200	200	3.9	15.30	6.59	3.49	0.6	25.4	-65	
9:58	11.12	200	200	4.9	15.29	6.59	3.49	0.51	23.4	-66	
10:03	11.12	200	200	5.9	15.32	6.59	3.50	0.45	22	-65	
10:08	11.12	200	200	6.9	15.30	6.59	3.50	0.41	20.1	-65	
10:13	11.12	200	200	7.9	15.29	6.58	3.50	0.38	17.2	-64	
10:18	11.12	200	200	8.9	15.35	6.58	3.49	0.36	15.5	-63	
10:23	11.12	200	200	9.9	15.44	6.58	3.50	0.34	14.3	-62	
10:28	11.12	200	200	10.9	15.44	6.58	3.50	0.33	13.6	-62	
10:33	11.12	200	200	11.9	15.40	6.58	3.50	0.31	12.9	-61	
											Sample ID: CCR-SP-1R-050825
											Sample Time: 10:35
											12.2 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. F.Reed
SAMPLING DATE 05/08/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-2 Well Depth Measured: NA ft Initial Depth To Water: 13.48 ft Field Parameter Device: Horiba U-52
 Start time: 11:11 Depth To Top Of Screen: 10.00 ft Depth Of Pump Intake: NA ft Tubing Present In Well: Yes No
 Finish Time: 12:05 Depth To Bottom Of Scree 20.00 ft Measuring Point: Top of Casing (TOC) Tubing Type: Polyethylene

Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/minr)	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]	
11:11	13.88	180	180	0.2	15.68	6.76	1.68	2.60	7.2	-52	
11:16	14.05	180	180	1.3	15.74	6.74	1.67	1.13	5.9	-59	
11:21	14.14	180	180	2.0	15.91	6.71	1.64	0.61	6.4	-54	
11:26	14.27	180	180	2.9	15.95	6.71	1.64	0.46	5.6	-55	
11:31	14.32	180	180	3.7	16.00	6.71	1.66	0.40	4.9	-62	
11:36	14.4	180	180	4.2	15.97	6.71	1.68	0.38	4.7	-66	
11:41	14.48	180	180	5.0	15.89	6.71	1.70	0.35	4.9	-67	
11:46	14.54	180	180	5.8	15.84	6.70	1.72	0.32	4.2	-67	
11:51	14.59	180	180	6.5	15.90	6.69	1.73	0.30	4.0	-65	
11:56	14.59	180	180	7.1	15.92	6.69	1.75	0.28	4.0	-65	
11:59	14.62	180	180	7.9	16.04	6.69	1.76	0.27	4.0	-64	
											Sample ID: CCR-SP-2-050825
											Sample Time: 12:05
											8.8 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. F.Reed
SAMPLING DATE 05/08/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-3 Well Depth Measured: NA ft Initial Depth To Water: 5.98 ft Field Parameter Device: Horiba U-52
 Start time: 12:45 Depth To Top Of Screen: 10.0 ft Depth Of Pump Intake: _____ ft Tubing Present In Well: Yes No
 Finish Time: 13:50 Depth To Bottom Of Scree 20.0 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)	Temperature (°C)	pH	Conductivity (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]	
12:45	6.92	240	240	0.6	15.13	6.94	0.656	1.49	53.4	70	
12:50	6.99	240	240	1.9	15.09	6.89	0.650	0.56	42.4	86	
12:55	7.13	240	240	3.0	15.06	6.90	0.649	0.44	26.4	92	
13:00	7.25	240	240	4.0	15.07	6.90	0.651	0.42	18.1	95	
13:05	7.35	200	200	5.0	15.07	6.89	0.657	0.45	11.1	5	
13:10	7.40	200	200	6.0	15.05	6.91	0.662	0.48	8.7	95	
13:15	7.47	200	200	7.0	15.02	6.91	0.668	0.53	6.1	93	
13:20	7.50	200	200	8.0	14.96	6.90	0.675	0.58	4.4	91	
13:25	7.52	200	200	9.0	14.97	6.90	0.682	0.63	3.9	89	
13:30	7.59	200	200	10.0	14.89	6.91	0.691	0.68	3.3	86	
13:35	7.57	200	200	11.0	14.88	6.91	0.702	0.74	2.6	84	
13:40	7.60	200	200	12.0	14.82	6.90	0.710	0.77	2.6	82	
13:43	7.60	200	200	12.6	14.85	6.91	0.717	0.8	2.6	79	
13:46	7.60	200	200	13.2	14.84	6.89	0.725	0.83	2.2	79	
											Sample ID: CCR-SP-3-050825
											Sample Time: 13:50
											14 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
LOCATION Evansville, Indiana
CLIENT Southern Indiana Gas and Electric Company
CONTRACTOR N/A

H&A FILE NO. 129420
PROJECT MGR. Neal Kochis
FIELD REP. O. Alston
SAMPLING DATE 11/04/25

Sampling Data: Well Depth as Built: 20.0 ft Well Diameter: 2.0 in Purging Device: Bladder
 Well ID: CCR-SP-2 Well Depth Measured: NM ft Initial Depth To Water: 15.07 ft Field Parameter Device: Horiba U-52
 Start time: 8:00 Depth To Top Of Screen: 10.00 ft Depth Of Pump Intake: 16.6 ft Tubing Present In Well: Yes No
 Finish Time: 9:55 Depth To Bottom Of Scree 20.00 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]		
8:00	15.44	120	120	0.8	17.66	6.78	1.68	2.15	2.1	93	
8:05	15.6	100	100	1.4	17.96	6.82	1.67	1.93	2.5	39	
8:10	15.6	100	100	1.8	18.19	6.84	1.67	1.82	2.9	17	
8:15	15.6	100	100	2.1	18.27	6.86	1.68	1.75	2.2	7	
8:20	15.6	100	100	2.6	18.37	6.86	1.69	1.71	2	1	
8:25	15.6	100	100	3.1	18.54	6.86	1.71	1.68	1.6	-4	
8:30	15.78	100	100	3.7	18.71	6.87	1.72	1.63	1.8	-6	
8:35	15.78	100	100	4.1	18.87	6.88	1.73	1.61	1.3	-9	
8:40	15.78	100	100	4.5	19.08	6.89	1.74	1.57	1.3	-12	
											Sample ID: CCR-SP-2-110425
											Smample Time: 08:50
											Finished Sampling 09:38

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 Report

 **ANALYTICAL REPORT****PREPARED FOR**

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

Generated 6/13/2025 6:48:05 PM

JOB DESCRIPTION

AB Brown Generating Station
Sedimentation Pond

JOB NUMBER

180-190226-1

Eurofins Pittsburgh

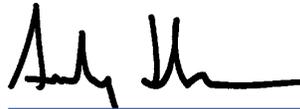
Job Notes

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



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Case Narrative

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

Job ID: 180-190226-1

Job ID: 180-190226-1

Eurofins Pittsburgh

Job Narrative 180-190226-1

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.

Eurofins Pittsburgh

Case Narrative

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

Job ID: 180-190226-1

Job ID: 180-190226-2

Eurofins Pittsburgh

Job Narrative 180-190226-2

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 to bring the concentration of target analytes within the calibration range: CCR-SP-2-050825 (180-190226-2), CCR-SP-3-050825 (180-190226-3) and DUP-3-050825 (180-190226-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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.

Eurofins Pittsburgh

Definitions/Glossary

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

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
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: 180-190226-1
 SDG: Sedimentation Pond

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: 180-190226-1
 SDG: Sedimentation Pond

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.

Accreditation/Certification Summary

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

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.

Accreditation/Certification Summary

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

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: 180-190226-1
SDG: Sedimentation Pond

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-190226-1	CCR-SP-1R-050825	Water	05/08/25 10:35	05/09/25 09:00
180-190226-2	CCR-SP-2-050825	Water	05/08/25 12:05	05/09/25 09:00
180-190226-3	CCR-SP-3-050825	Water	05/08/25 13:50	05/09/25 09:00
180-190226-4	DUP-3-050825	Water	05/08/25 13:00	05/09/25 09:00
180-190226-5	FB-2-050825	Water	05/08/25 13:20	05/09/25 09:00

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Method Summary

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

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: 180-190226-1
SDG: Sedimentation Pond

Client Sample ID: CCR-SP-1R-050825

Lab Sample ID: 180-190226-1

Date Collected: 05/08/25 10:35

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 12:18	ERP	EET PIT
		Instrument ID: INUVION								
Total/NA	Analysis	EPA 9056A		1	1 mL	1 mL	496132	05/19/25 12:30	ERP	EET PIT
		Instrument ID: INUVION								
Total Recoverable	Prep	3005A			50 mL	50 mL	643917	05/15/25 06:58	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D		1			644817	05/15/25 18:12	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 22:52	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 17:24	HNC4	ELLE
		Instrument ID: M10 – 31820								
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 15:44	BAB	EET PIT
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
		Instrument ID: NOEQUIP								
Total/NA	Prep	PrecSep-21			1001.17 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315		1			721791	06/11/25 19:40	SWS	EET SL
		Instrument ID: GFPCRED								
Total/NA	Prep	PrecSep_0			1001.17 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320		1			721791	06/11/25 14:15	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-SP-2-050825

Lab Sample ID: 180-190226-2

Date Collected: 05/08/25 12:05

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 13:08	ERP	EET PIT
		Instrument ID: INUVION								
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	496132	05/19/25 13:21	ERP	EET PIT
		Instrument ID: INUVION								
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 17:12	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 22:55	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 17:19	HNC4	ELLE
		Instrument ID: M10 – 31820								

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Lab Chronicle

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: CCR-SP-2-050825

Lab Sample ID: 180-190226-2

Date Collected: 05/08/25 12:05

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 9040C		1			495774	05/13/25 15:49	BAB	EET PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
Total/NA	Prep	PrecSep-21			1008.66 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315 Instrument ID: GFPCRED		1			721791	06/11/25 19:40	SWS	EET SL
Total/NA	Prep	PrecSep_0			1008.66 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320 Instrument ID: GFPCRED		1			721791	06/11/25 14:15	SWS	EET SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			722322	06/13/25 11:31	CAH	EET SL

Client Sample ID: CCR-SP-3-050825

Lab Sample ID: 180-190226-3

Date Collected: 05/08/25 13:50

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 Instrument ID: INUVION		2.5	1 mL	1 mL	496132	05/19/25 13:33	ERP	EET PIT
Total/NA	Analysis	EPA 9056A Instrument ID: INUVION		5	1 mL	1 mL	496243	05/20/25 13:48	ERP	EET PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	643902	05/19/25 06:42	UJL8	ELLE
Total Recoverable	Analysis	EPA 6010D Instrument ID: T74 - 23745		1			646162	05/19/25 17:09	T8CQ	ELLE
Total Recoverable	Prep	3005A			50 mL	50 mL	656349	05/16/25 14:00	BN	EET CLE
Total Recoverable	Analysis	EPA 6020B Instrument ID: I15		1			656675	05/19/25 22:57	S4FJ	EET CLE
Total/NA	Prep	7470A			20 mL	20.0 mL	644035	05/16/25 09:10	X3ZX	ELLE
Total/NA	Analysis	EPA 7470A Instrument ID: M10 – 31820		1			645253	05/16/25 17:46	HNC4	ELLE
Total/NA	Analysis	EPA 9040C Instrument ID: NOEQUIP		1			495774	05/13/25 15:57	BAB	EET PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
Total/NA	Prep	PrecSep-21			1002.47 mL	1.0 g	718074	05/19/25 08:09	OGC	EET SL
Total/NA	Analysis	9315 Instrument ID: GFPCRED		1			721791	06/11/25 19:41	SWS	EET SL
Total/NA	Prep	PrecSep_0			1002.47 mL	1.0 g	718078	05/19/25 08:13	OGC	EET SL
Total/NA	Analysis	9320 Instrument ID: GFPCRED		1			721791	06/11/25 14:16	SWS	EET SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			722322	06/13/25 11:31	CAH	EET SL

Lab Chronicle

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Client Sample ID: DUP-3-050825

Lab Sample ID: 180-190226-4

Date Collected: 05/08/25 13:00

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		1	1 mL	1 mL	496132	05/19/25 14:57	ERP	EET PIT
	Instrument ID: INUVION									
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	496132	05/19/25 15:10	ERP	EET PIT
	Instrument ID: INUVION									
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 17:00	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 23:05	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 18:42	X3ZX	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 15:54	BAB	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
	Instrument ID: NOEQUIP									
Total/NA	Prep	PrecSep-21			1005.73 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			1005.73 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: FB-2-050825

Lab Sample ID: 180-190226-5

Date Collected: 05/08/25 13:20

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	496133	05/19/25 18:21	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 17:03	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 23:08	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 17:22	HNC4	ELLE
	Instrument ID: M10 – 31820									
Total/NA	Analysis	EPA 9040C		1			495774	05/13/25 15:51	BAB	EET PIT
	Instrument ID: NOEQUIP									

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Lab Chronicle

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: FB-2-050825

Lab Sample ID: 180-190226-5

Date Collected: 05/08/25 13:20

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	SM 2540C		1	100 mL	100 mL	495782	05/14/25 13:10	SNR	EET PIT
Total/NA	Prep	PrecSep-21			1000.17 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			1000.17 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										

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

UJL8 = James Mertz

X3ZX = Skyler Ruf

Batch Type: Analysis

HNC4 = Mindy Schantzenbach

T8CQ = Sera Bargo

X3ZX = Skyler Ruf

Client Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Client Sample ID: CCR-SP-1R-050825

Lab Sample ID: 180-190226-1

Date Collected: 05/08/25 10:35

Matrix: Water

Date Received: 05/09/25 09:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53		1.0	0.71	mg/L			05/19/25 12:18	1
Fluoride	0.28		0.10	0.026	mg/L			05/19/25 12:18	1
Sulfate	66		1.0	0.76	mg/L			05/19/25 12:30	1

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		05/15/25 06:58	05/15/25 18:12	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		05/16/25 14:00	05/19/25 22:52	1
Arsenic	0.0050		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 22:52	1
Barium	0.040		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 22:52	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 22:52	1
Cadmium	0.00036	J	0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 22:52	1
Calcium	330		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 22:52	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 22:52	1
Cobalt	0.0091		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 22:52	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 22:52	1
Lithium	0.0050	J	0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 22:52	1
Molybdenum	0.0013	J	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 22:52	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 22:52	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 22:52	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 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3000		20	20	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 15:44	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	0.207	U	0.251	0.252	1.00	0.414	pCi/L	05/19/25 08:09	06/11/25 19:40	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		30 - 110	05/19/25 08:09	06/11/25 19:40	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	0.983		0.428	0.437	1.00	0.566	pCi/L	05/19/25 08:13	06/11/25 14:15	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		30 - 110	05/19/25 08:13	06/11/25 14:15	1

Eurofins Pittsburgh

Client Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: CCR-SP-1R-050825

Lab Sample ID: 180-190226-1

Date Collected: 05/08/25 10:35

Matrix: Water

Date Received: 05/09/25 09:00

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

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Y Carrier	79.3		30 - 110	05/19/25 08:13	06/11/25 14:15	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	1.19		0.496	0.504	5.00	0.566	pCi/L		06/13/25 11:31	1

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Client Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Client Sample ID: CCR-SP-2-050825

Lab Sample ID: 180-190226-2

Date Collected: 05/08/25 12:05

Matrix: Water

Date Received: 05/09/25 09:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62		1.0	0.71	mg/L			05/19/25 13:08	1
Fluoride	0.45		0.10	0.026	mg/L			05/19/25 13:08	1
Sulfate	480		10	7.6	mg/L			05/19/25 13:21	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.085		0.050	0.012	mg/L		05/19/25 06:42	05/19/25 17:12	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		05/16/25 14:00	05/19/25 22:55	1
Arsenic	0.0024	J	0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 22:55	1
Barium	0.11		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 22:55	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 22:55	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 22:55	1
Calcium	230		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 22:55	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 22:55	1
Cobalt	0.0011		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 22:55	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 22:55	1
Lithium	0.0044	J	0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 22:55	1
Molybdenum	0.0013	J	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 22:55	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 22:55	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 22:55	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 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1300		10	10	mg/L			05/14/25 13:10	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 15:49	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	0.362		0.242	0.244	1.00	0.334	pCi/L	05/19/25 08:09	06/11/25 19:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		30 - 110					05/19/25 08:09	06/11/25 19:40	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	0.366	U	0.341	0.343	1.00	0.543	pCi/L	05/19/25 08:13	06/11/25 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.6		30 - 110					05/19/25 08:13	06/11/25 14:15	1

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Client Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: CCR-SP-2-050825

Lab Sample ID: 180-190226-2

Date Collected: 05/08/25 12:05

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	82.6		30 - 110	05/19/25 08:13	06/11/25 14:15	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.728		0.418	0.421	5.00	0.543	pCi/L		06/13/25 11:31	1



Client Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: CCR-SP-3-050825

Lab Sample ID: 180-190226-3

Date Collected: 05/08/25 13:50

Matrix: Water

Date Received: 05/09/25 09:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.5	1.8	mg/L			05/19/25 13:33	2.5
Fluoride	0.20	J	0.25	0.065	mg/L			05/19/25 13:33	2.5
Sulfate	170		5.0	3.8	mg/L			05/20/25 13:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.041	J	0.050	0.012	mg/L		05/19/25 06:42	05/19/25 17:09	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 22:57	1
Arsenic	0.00076	J	0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 22:57	1
Barium	0.083		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 22:57	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 22:57	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 22:57	1
Calcium	130		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 22:57	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 22:57	1
Cobalt	0.00020	J	0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 22:57	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 22:57	1
Lithium	0.0042	J	0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 22:57	1
Molybdenum	0.0026	J	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 22:57	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 22:57	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 22:57	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		05/16/25 09:10	05/16/25 17:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	680		10	10	mg/L			05/14/25 13:10	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 15:57	1

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Total						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.0915	U	0.159	0.159	1.00	0.280	pCi/L	05/19/25 08:09	06/11/25 19:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		30 - 110					05/19/25 08:09	06/11/25 19:41	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Total						
			(2σ+/-)	(2σ+/-)						
Radium-228	0.0160	U	0.249	0.249	1.00	0.473	pCi/L	05/19/25 08:13	06/11/25 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		30 - 110					05/19/25 08:13	06/11/25 14:16	1

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Client Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: CCR-SP-3-050825

Lab Sample ID: 180-190226-3

Date Collected: 05/08/25 13:50

Matrix: Water

Date Received: 05/09/25 09:00

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

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Y Carrier	78.1		30 - 110	05/19/25 08:13	06/11/25 14:16	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	0.108	U	0.295	0.295	5.00	0.473	pCi/L		06/13/25 11:31	1

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Client Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Client Sample ID: DUP-3-050825

Lab Sample ID: 180-190226-4

Date Collected: 05/08/25 13:00

Matrix: Water

Date Received: 05/09/25 09:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62		1.0	0.71	mg/L			05/19/25 14:57	1
Fluoride	0.48		0.10	0.026	mg/L			05/19/25 14:57	1
Sulfate	470		10	7.6	mg/L			05/19/25 15:10	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.090		0.050	0.012	mg/L		05/19/25 06:42	05/19/25 17:00	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 23:05	1
Arsenic	0.0026	J	0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:05	1
Barium	0.11		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:05	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:05	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:05	1
Calcium	230		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:05	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:05	1
Cobalt	0.0011		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:05	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:05	1
Lithium	0.0041	J	0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:05	1
Molybdenum	0.0012	J	0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:05	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:05	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:05	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		05/21/25 08:35	05/21/25 18:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1400		10	10	mg/L			05/14/25 13:10	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 15:54	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	0.0961	U	0.179	0.179	1.00	0.321	pCi/L	05/19/25 08:09	06/11/25 19:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.1		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	0.269	U	0.367	0.368	1.00	0.616	pCi/L	05/19/25 08:13	06/11/25 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.1		30 - 110					05/19/25 08:13	06/11/25 14:16	1

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Client Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: DUP-3-050825

Lab Sample ID: 180-190226-4

Date Collected: 05/08/25 13:00

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	77.8		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	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.365	U	0.408	0.409	5.00	0.616	pCi/L		06/13/25 11:31	1



Client Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Client Sample ID: FB-2-050825

Lab Sample ID: 180-190226-5

Date Collected: 05/08/25 13:20

Matrix: Water

Date Received: 05/09/25 09:00

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0	0.71	mg/L			05/19/25 18:21	1
Fluoride	ND		0.10	0.026	mg/L			05/19/25 18:21	1
Sulfate	ND		1.0	0.76	mg/L			05/19/25 18:21	1

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

Analyte	Result	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 17:03	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 23:08	1
Arsenic	ND		0.0050	0.00075	mg/L		05/16/25 14:00	05/19/25 23:08	1
Barium	ND		0.0050	0.00077	mg/L		05/16/25 14:00	05/19/25 23:08	1
Beryllium	ND		0.0010	0.00027	mg/L		05/16/25 14:00	05/19/25 23:08	1
Cadmium	ND		0.0010	0.000077	mg/L		05/16/25 14:00	05/19/25 23:08	1
Calcium	ND		1.0	0.25	mg/L		05/16/25 14:00	05/19/25 23:08	1
Chromium	ND		0.0050	0.0012	mg/L		05/16/25 14:00	05/19/25 23:08	1
Cobalt	ND		0.0010	0.000086	mg/L		05/16/25 14:00	05/19/25 23:08	1
Lead	ND		0.0010	0.00045	mg/L		05/16/25 14:00	05/19/25 23:08	1
Lithium	ND		0.0080	0.0034	mg/L		05/16/25 14:00	05/19/25 23:08	1
Molybdenum	ND		0.0050	0.0011	mg/L		05/16/25 14:00	05/19/25 23:08	1
Selenium	ND		0.0050	0.00089	mg/L		05/16/25 14:00	05/19/25 23:08	1
Thallium	ND		0.0010	0.00051	mg/L		05/16/25 14:00	05/19/25 23:08	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 17:22	1

General Chemistry

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

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	5.8	HF	0.1	0.1	SU			05/13/25 15:51	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	0.0325	U	0.119	0.119	1.00	0.240	pCi/L	05/19/25 08:09	06/11/25 19:41	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		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	0.319	U	0.332	0.333	1.00	0.536	pCi/L	05/19/25 08:13	06/11/25 14:16	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.8		30 - 110	05/19/25 08:13	06/11/25 14:16	1

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Client Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

Client Sample ID: FB-2-050825

Lab Sample ID: 180-190226-5

Date Collected: 05/08/25 13:20

Matrix: Water

Date Received: 05/09/25 09:00

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

<u>Carrier</u>	<u>%Yield</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Y Carrier	79.6		30 - 110	05/19/25 08:13	06/11/25 14:16	1

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

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Count Uncert. (2σ+/-)</u>	<u>Total Uncert. (2σ+/-)</u>	<u>RL</u>	<u>MDC</u>	<u>Unit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Combined Radium 226 + 228	0.352	U	0.353	0.354	5.00	0.536	pCi/L		06/13/25 11:31	1

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QC Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

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: 180-190226-5 MS
Matrix: Water
Analysis Batch: 496133

Client Sample ID: FB-2-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		50.0	49.3		mg/L		99	80 - 120
Fluoride	ND		2.50	2.65		mg/L		106	80 - 120
Sulfate	ND		50.0	50.4		mg/L		101	80 - 120

Lab Sample ID: 180-190226-5 MSD
Matrix: Water
Analysis Batch: 496133

Client Sample ID: FB-2-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	ND		50.0	49.5		mg/L		99	80 - 120	0	15
Fluoride	ND		2.50	2.57		mg/L		103	80 - 120	3	15
Sulfate	ND		50.0	50.3		mg/L		101	80 - 120	0	15

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QC Sample Results

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

Job ID: 180-190226-1
 SDG: Sedimentation Pond

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

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

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

QC Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

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

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

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QC Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

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

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

Lab Sample ID: 180-190226-1 DU
Matrix: Water
Analysis Batch: 495774

Client Sample ID: CCR-SP-1R-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.7	HF	6.7		SU		0	2

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

Lab Sample ID: 180-190226-2 DU
Matrix: Water
Analysis Batch: 495782

Client Sample ID: CCR-SP-2-050825
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1300		1390		mg/L		4	10

QC Sample Results

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

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	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
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	%Yield	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	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-226	9.58	8.129		1.12	1.00	0.298	pCi/L	85	75 - 125
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	95.3		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	MB	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
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	%Yield	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	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Radium-228	9.36	10.48		1.39	1.00	0.551	pCi/L	112	75 - 125
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	95.3		30 - 110						
Y Carrier	79.6		30 - 110						

QC Association Summary

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

HPLC/IC

Analysis Batch: 496132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	EPA 9056A	
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	EPA 9056A	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	EPA 9056A	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	EPA 9056A	
180-190226-3	CCR-SP-3-050825	Total/NA	Water	EPA 9056A	
180-190226-4	DUP-3-050825	Total/NA	Water	EPA 9056A	
180-190226-4	DUP-3-050825	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
180-190226-5	FB-2-050825	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	
180-190226-5 MS	FB-2-050825	Total/NA	Water	EPA 9056A	
180-190226-5 MSD	FB-2-050825	Total/NA	Water	EPA 9056A	

Analysis Batch: 496243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-3	CCR-SP-3-050825	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	

Metals

Prep Batch: 643902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-2	CCR-SP-2-050825	Total Recoverable	Water	3005A	
180-190226-3	CCR-SP-3-050825	Total Recoverable	Water	3005A	
180-190226-4	DUP-3-050825	Total Recoverable	Water	3005A	
180-190226-5	FB-2-050825	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: 643917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-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
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	7470A	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	7470A	
180-190226-3	CCR-SP-3-050825	Total/NA	Water	7470A	
180-190226-5	FB-2-050825	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	

QC Association Summary

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Metals

Prep Batch: 644036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-4	DUP-3-050825	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	

Analysis Batch: 644817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-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: 645253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	EPA 7470A	644035
180-190226-2	CCR-SP-2-050825	Total/NA	Water	EPA 7470A	644035
180-190226-3	CCR-SP-3-050825	Total/NA	Water	EPA 7470A	644035
180-190226-5	FB-2-050825	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

Analysis Batch: 646162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-2	CCR-SP-2-050825	Total Recoverable	Water	EPA 6010D	643902
180-190226-3	CCR-SP-3-050825	Total Recoverable	Water	EPA 6010D	643902
180-190226-4	DUP-3-050825	Total Recoverable	Water	EPA 6010D	643902
180-190226-5	FB-2-050825	Total Recoverable	Water	EPA 6010D	643902
MB 410-643902/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	643902
LCS 410-643902/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	643902

Analysis Batch: 647358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-4	DUP-3-050825	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
180-190226-1	CCR-SP-1R-050825	Total Recoverable	Water	3005A	
180-190226-2	CCR-SP-2-050825	Total Recoverable	Water	3005A	
180-190226-3	CCR-SP-3-050825	Total Recoverable	Water	3005A	
180-190226-4	DUP-3-050825	Total Recoverable	Water	3005A	
180-190226-5	FB-2-050825	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	

Analysis Batch: 656675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total Recoverable	Water	EPA 6020B	656349
180-190226-2	CCR-SP-2-050825	Total Recoverable	Water	EPA 6020B	656349
180-190226-3	CCR-SP-3-050825	Total Recoverable	Water	EPA 6020B	656349
180-190226-4	DUP-3-050825	Total Recoverable	Water	EPA 6020B	656349
180-190226-5	FB-2-050825	Total Recoverable	Water	EPA 6020B	656349

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QC Association Summary

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

Job ID: 180-190226-1
SDG: Sedimentation Pond

Metals (Continued)

Analysis Batch: 656675 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-656349/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	656349
LCS 240-656349/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	656349

General Chemistry

Analysis Batch: 495774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	EPA 9040C	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	EPA 9040C	
180-190226-3	CCR-SP-3-050825	Total/NA	Water	EPA 9040C	
180-190226-4	DUP-3-050825	Total/NA	Water	EPA 9040C	
180-190226-5	FB-2-050825	Total/NA	Water	EPA 9040C	
LCS 180-495774/40	Lab Control Sample	Total/NA	Water	EPA 9040C	
180-190226-1 DU	CCR-SP-1R-050825	Total/NA	Water	EPA 9040C	

Analysis Batch: 495782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	SM 2540C	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	SM 2540C	
180-190226-3	CCR-SP-3-050825	Total/NA	Water	SM 2540C	
180-190226-4	DUP-3-050825	Total/NA	Water	SM 2540C	
180-190226-5	FB-2-050825	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	
180-190226-2 DU	CCR-SP-2-050825	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 718074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	PrecSep-21	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	PrecSep-21	
180-190226-3	CCR-SP-3-050825	Total/NA	Water	PrecSep-21	
180-190226-4	DUP-3-050825	Total/NA	Water	PrecSep-21	
180-190226-5	FB-2-050825	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	

Prep Batch: 718078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-190226-1	CCR-SP-1R-050825	Total/NA	Water	PrecSep_0	
180-190226-2	CCR-SP-2-050825	Total/NA	Water	PrecSep_0	
180-190226-3	CCR-SP-3-050825	Total/NA	Water	PrecSep_0	
180-190226-4	DUP-3-050825	Total/NA	Water	PrecSep_0	
180-190226-5	FB-2-050825	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	

100-0
ETP-1
XXL-100

435960827622

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

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

MOUNT VERNON, IN 47620
UNITED STATES US

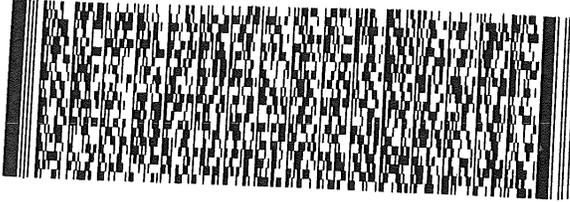
TO **SAMPLE RECEIVING DEPARTMENT**
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238

(412) 963-7630

REF: RETURN

RMA: ||| ||| |||



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

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

MOUNT VERNON, IN 47620
UNITED STATES US

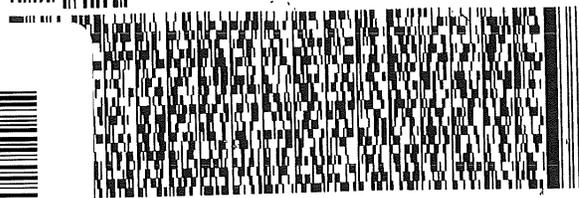
TO **SAMPLE RECEIVING DEPARTMENT**
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DRIVE

PITTSBURGH PA 15238

(412) 963-7630

REF: RETURN

RMA: ||| ||| |||



Part # 150469-434 HUBZ Exp 02/26

1
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13

Uncorrected temp 2.4 °C
Thermometer ID 26
CF -0.5 Initials TS
PT-WI-SR-001 effective 7/26/13

NX AGCA
FedEx
TRK# 4359 6082 7622
0221
FRI - 09 MAY 10:30A
PRIORITY OVERNIGHT
PA-US
15238

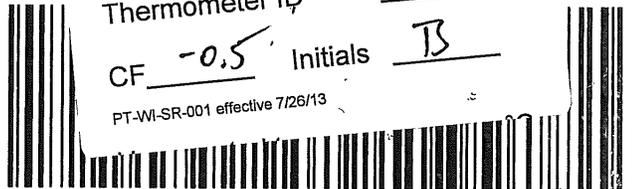


180-190226 Waybill

DETIDMC MON - SA
FRI - 09 MAY 10:30
PRIORITY OVERNIGHT

X AGCA

Uncorrected temp 2.2 °C
Thermometer ID 26
CF -0.5 Initials TS
PT-WI-SR-001 effective 7/26/13



#3941278 05/08 56CJ3/630D/C6C4

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

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

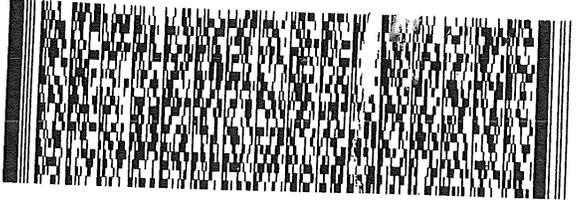
MOUNT VERNON, IN 47620
UNITED STATES US

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

PITTSBURGH PA 15238

(412) 963-7630
REF: RETURN

RMA: ||| ||| |||



FedEx
TRK# 4359 6082 7699
0221

FRI - 09 MAY 10:30
PRIORITY OVERNIGHT

NX AGCA

15238
PA-US PI

Uncorrected temp	<u>2.6</u> °C
Thermometer ID	<u>26</u>
CF: <u>-0.5</u>	Initials <u>JS</u>

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

#394127B 05/08 58CJ3/630D/C6C4

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

SHIP DATE: 25APR25
ACTWGT: 10.00 LB MAN
CAD: 0522321/CAFE3905

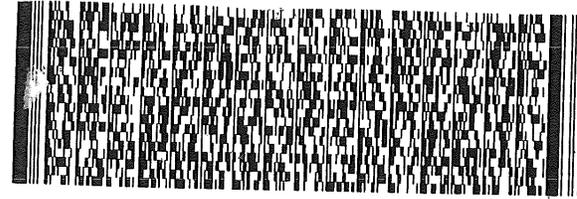
MOUNT VERNON, IN 47620
UNITED STATES US

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

PITTSBURGH PA 15238

(412) 963-7630
REF: S180-113087

RMA: ||| ||| |||



FedEx
TRK# 4359 6082 6394
0221

FRI - 09 MAY 10:30
PRIORITY OVERNIGHT

NX AGCA

1523
PA-US PI

Uncorrected temp	<u>1.6</u> °C
Thermometer ID	<u>26</u>
CF: <u>-0.5</u>	Initials <u>JS</u>

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

#394127B 05/08 58CJ3/630D/C6C4

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

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

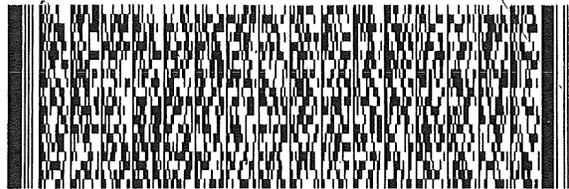
MOUNT VERNON, IN 47620
UNITED STATES US

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 **PI**

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

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Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 180-190226-1
SDG Number: Sedimentation Pond

Login Number: 190226

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: 180-190226-1
SDG Number: Sedimentation Pond

Login Number: 190226

List Number: 4

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 05/15/25 03:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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.



 **ANALYTICAL REPORT****PREPARED FOR**

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

Generated 12/12/2025 6:32:11 PM

JOB DESCRIPTION

AB Brown Generating Station
Semi-Annual

JOB NUMBER

180-198159-1

Eurofins Pittsburgh

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 6:32:11 PM

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



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Case Narrative

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

Job ID: 180-198159-1

Job ID: 180-198159-1

Eurofins Pittsburgh

Job Narrative 180-198159-1

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

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.

Eurofins Pittsburgh

Case Narrative

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

Job ID: 180-198159-1

Job ID: 180-198159-2

Eurofins Pittsburgh

Job Narrative 180-198159-2

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-SP-1R-110425 (180-198159-1), CCR-SP-2-110425 (180-198159-2), (180-198160-D-2), (180-198160-D-2 MS) and (180-198160-D-2 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

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.

Eurofins Pittsburgh

Definitions/Glossary

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

Job ID: 180-198159-1
SDG: Semi-Annual

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
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: 180-198159-1
 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.

Eurofins Pittsburgh

Accreditation/Certification Summary

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

Job ID: 180-198159-1
 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	09-14-26
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: 180-198159-1
 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	12-11-25
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: 180-198159-1
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: 180-198159-1
SDG: Semi-Annual

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
180-198159-1	CCR-SP-1R-110425	Water	11/04/25 10:50	11/06/25 09:30	Indiana
180-198159-2	CCR-SP-2-110425	Water	11/04/25 08:50	11/06/25 09:30	Indiana
180-198159-3	CCR-SP-3-110425	Water	11/04/25 12:25	11/06/25 09:30	Indiana
180-198159-4	DUP-1-110425	Water	11/04/25 12:00	11/06/25 09:30	Indiana

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Method Summary

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

Job ID: 180-198159-1
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: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-1R-110425

Lab Sample ID: 180-198159-1

Date Collected: 11/04/25 10:50

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 18:27	ERP	EET PIT
Instrument ID: INTEGRION										
Total/NA	Analysis	EPA 9056A		25	1 mL	1 mL	506070	11/10/25 19:10	ERP	EET PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	729239	11/17/25 11:06	RFN5	ELLE
Total Recoverable	Analysis	EPA 6010D		1			731308	11/18/25 00:01	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 16:26	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 09:37	X3ZX	ELLE
Instrument ID: M10 – 31820										
Total/NA	Analysis	EPA 9040C		1			505988	11/07/25 14:07	BAB	EET PIT
Instrument ID: OZ										
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	506088	11/10/25 13:41	A1K	EET PIT
Instrument ID: NOEQUIP										
Total/NA	Prep	PrecSep-21			1001.18 mL	1.0 g	744947	11/12/25 08:16	VLQ	EET SL
Total/NA	Analysis	9315		1			748059	12/05/25 14:58	SWS	EET SL
Instrument ID: GFPCRED										
Total/NA	Prep	PrecSep_0			1001.18 mL	1.0 g	744948	11/12/25 08:26	VLQ	EET SL
Total/NA	Analysis	9320		1			747899	12/04/25 12:23	SWS	EET SL
Instrument ID: GFPCRED										
Total/NA	Analysis	Ra226_Ra228		1			748462	12/09/25 10:06	CMM	EET SL
Instrument ID: NOEQUIP										

Client Sample ID: CCR-SP-2-110425

Lab Sample ID: 180-198159-2

Date Collected: 11/04/25 08:50

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 19:25	ERP	EET PIT
Instrument ID: INTEGRION										
Total/NA	Analysis	EPA 9056A		10	1 mL	1 mL	506070	11/10/25 19:39	ERP	EET PIT
Instrument ID: INTEGRION										
Total Recoverable	Prep	3005A			50 mL	50 mL	729239	11/17/25 11:06	RFN5	ELLE
Total Recoverable	Analysis	EPA 6010D		1			731308	11/17/25 23:55	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 16:29	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 09:39	X3ZX	ELLE
Instrument ID: M10 – 31820										

Eurofins Pittsburgh

Lab Chronicle

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-2-110425

Lab Sample ID: 180-198159-2

Date Collected: 11/04/25 08:50

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 13:04	BAB	EET PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	506088	11/10/25 13:41	A1K	EET PIT
Total/NA	Prep	PrecSep-21			1000.49 mL	1.0 g	744947	11/12/25 08:16	VLQ	EET SL
Total/NA	Analysis	9315 Instrument ID: GFPCRED		1			748059	12/05/25 14:58	SWS	EET SL
Total/NA	Prep	PrecSep_0			1000.49 mL	1.0 g	744948	11/12/25 08:26	VLQ	EET SL
Total/NA	Analysis	9320 Instrument ID: GFPCRED		1			747899	12/04/25 12:23	SWS	EET SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			748462	12/09/25 10:06	CMM	EET SL

Client Sample ID: CCR-SP-3-110425

Lab Sample ID: 180-198159-3

Date Collected: 11/04/25 12:25

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 Instrument ID: INTEGRION		1	1 mL	1 mL	506070	11/10/25 19:54	ERP	EET PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	729239	11/17/25 11:06	RFN5	ELLE
Total Recoverable	Analysis	EPA 6010D Instrument ID: T74 - 23745		1			731308	11/17/25 23:58	MT26	ELLE
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B Instrument ID: I15		1			680597	11/13/25 16:32	AJC	EET CLE
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A Instrument ID: M10 - 31820		1			732326	11/19/25 09:41	X3ZX	ELLE
Total/NA	Analysis	EPA 9040C Instrument ID: OZ		1			505988	11/07/25 13:09	BAB	EET PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	506088	11/10/25 13:41	A1K	EET PIT
Total/NA	Prep	PrecSep-21			1002.70 mL	1.0 g	744947	11/12/25 08:16	VLQ	EET SL
Total/NA	Analysis	9315 Instrument ID: GFPCRED		1			748059	12/05/25 14:58	SWS	EET SL
Total/NA	Prep	PrecSep_0			1002.70 mL	1.0 g	744948	11/12/25 08:26	VLQ	EET SL
Total/NA	Analysis	9320 Instrument ID: GFPCRED		1			747899	12/04/25 12:23	SWS	EET SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			748462	12/09/25 10:06	CMM	EET SL

Lab Chronicle

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: DUP-1-110425

Lab Sample ID: 180-198159-4

Date Collected: 11/04/25 12:00

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 Instrument ID: INTEGRION		1	1 mL	1 mL	506070	11/10/25 20:08	ERP	EET PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	729239	11/17/25 11:06	RFN5	ELLE
Total Recoverable	Analysis	EPA 6010D Instrument ID: T74 - 23745		1			731308	11/18/25 00:04	MT26	ELLE
Total Recoverable	Prep	3005A			50 mL	50 mL	680302	11/12/25 14:00	MN7X	EET CLE
Total Recoverable	Analysis	EPA 6020B Instrument ID: I15		1			680597	11/13/25 16:35	AJC	EET CLE
Total/NA	Prep	7470A			20 mL	20 mL	731789	11/18/25 23:45	UAMX	ELLE
Total/NA	Analysis	EPA 7470A Instrument ID: M10 – 31820		1			732326	11/19/25 09:47	X3ZX	ELLE
Total/NA	Analysis	EPA 9040C Instrument ID: NOEQUIP		1			506006	11/08/25 10:53	RAO	EET PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	506088	11/10/25 13:41	A1K	EET PIT
Total/NA	Prep	PrecSep-21			1003.08 mL	1.0 g	744947	11/12/25 08:16	VLQ	EET SL
Total/NA	Analysis	9315 Instrument ID: GFPCRED		1	1.0 mL	1.0 mL	748059	12/05/25 14:58	SWS	EET SL
Total/NA	Prep	PrecSep_0			1003.08 mL	1.0 g	744948	11/12/25 08:26	VLQ	EET SL
Total/NA	Analysis	9320 Instrument ID: GFPCRED		1			747899	12/04/25 12:23	SWS	EET SL
Total/NA	Analysis	Ra226_Ra228 Instrument ID: NOEQUIP		1			748462	12/09/25 10:06	CMM	EET SL

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: 180-198159-1
SDG: Semi-Annual

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

CMM = Chelsea Mazariegos

SWS = Seth Stubblefield

Lab: ELLE

Batch Type: Prep

RFN5 = Aniyah Oxendine

UAMX = Annamaria Kuhns

Batch Type: Analysis

MT26 = Jason Knight

X3ZX = Skyler Ruf

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Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-1R-110425

Lab Sample ID: 180-198159-1

Date Collected: 11/04/25 10:50

Matrix: Water

Date Received: 11/06/25 09:30

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		2.5	1.8	mg/L			11/10/25 18:27	2.5
Fluoride	0.25		0.25	0.065	mg/L			11/10/25 18:27	2.5
Sulfate	1600		25	19	mg/L			11/10/25 19:10	25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3		0.050	0.012	mg/L		11/17/25 11:06	11/18/25 00:01	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 16:26	1
Arsenic	0.0044	J	0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:26	1
Barium	0.027		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:26	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:26	1
Cadmium	0.00020	J	0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:26	1
Calcium	280		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:26	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:26	1
Cobalt	0.0084		0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:26	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:26	1
Lithium	0.0070	J	0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:26	1
Molybdenum	0.0014	J	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:26	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:26	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:26	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 09:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	3000		20	20	mg/L			11/10/25 13:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.0	HF	0.1	0.1	SU			11/07/25 14:07	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	0.143	U	0.128	0.129	1.00	0.189	pCi/L	11/12/25 08:16	12/05/25 14:58	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		30 - 110	11/12/25 08:16	12/05/25 14:58	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.106	U	0.348	0.348	1.00	0.621	pCi/L	11/12/25 08:26	12/04/25 12:23	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		30 - 110	11/12/25 08:26	12/04/25 12:23	1

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Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-1R-110425

Lab Sample ID: 180-198159-1

Date Collected: 11/04/25 10:50

Matrix: Water

Date Received: 11/06/25 09:30

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

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	80.0		30 - 110	11/12/25 08:26	12/04/25 12:23	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	0.249	U	0.371	0.371	5.00	0.621	pCi/L		12/09/25 10:06	1



Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-2-110425

Lab Sample ID: 180-198159-2

Date Collected: 11/04/25 08:50

Matrix: Water

Date Received: 11/06/25 09:30

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71		1.0	0.71	mg/L			11/10/25 19:25	1
Fluoride	0.24		0.10	0.026	mg/L			11/10/25 19:25	1
Sulfate	570		10	7.6	mg/L			11/10/25 19:39	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.082		0.050	0.012	mg/L		11/17/25 11:06	11/17/25 23:55	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 16:29	1
Arsenic	0.0020	J	0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:29	1
Barium	0.10		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:29	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:29	1
Cadmium	ND		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:29	1
Calcium	220		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:29	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:29	1
Cobalt	0.00084	J	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:29	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:29	1
Lithium	0.0065	J	0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:29	1
Molybdenum	0.0014	J	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:29	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:29	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:29	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 09:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1400		10	10	mg/L			11/10/25 13:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.0	HF	0.1	0.1	SU			11/07/25 13:04	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	0.256		0.179	0.180	1.00	0.249	pCi/L	11/12/25 08:16	12/05/25 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.6		30 - 110					11/12/25 08:16	12/05/25 14:58	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.751		0.453	0.459	1.00	0.657	pCi/L	11/12/25 08:26	12/04/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.6		30 - 110					11/12/25 08:26	12/04/25 12:23	1

Eurofins Pittsburgh

Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-2-110425

Lab Sample ID: 180-198159-2

Date Collected: 11/04/25 08:50

Matrix: Water

Date Received: 11/06/25 09:30

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

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	77.0		30 - 110	11/12/25 08:26	12/04/25 12:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.487	0.493	5.00	0.657	pCi/L		12/09/25 10:06	1



Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-3-110425

Lab Sample ID: 180-198159-3

Date Collected: 11/04/25 12:25

Matrix: Water

Date Received: 11/06/25 09:30

Method: SW846 EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.0		1.0	0.71	mg/L			11/10/25 19:54	1
Fluoride	0.33		0.10	0.026	mg/L			11/10/25 19:54	1
Sulfate	37		1.0	0.76	mg/L			11/10/25 19:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.019	J	0.050	0.012	mg/L		11/17/25 11:06	11/17/25 23:58	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 16:32	1
Arsenic	0.0066		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:32	1
Barium	0.074		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:32	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:32	1
Cadmium	ND		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:32	1
Calcium	89		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:32	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:32	1
Cobalt	0.00061	J	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:32	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:32	1
Lithium	ND		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:32	1
Molybdenum	0.0040	J	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:32	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:32	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:32	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 09:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	420		10	10	mg/L			11/10/25 13:41	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 13:09	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	0.275		0.180	0.182	1.00	0.242	pCi/L	11/12/25 08:16	12/05/25 14:58	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		30 - 110	11/12/25 08:16	12/05/25 14:58	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0171	U	0.392	0.393	1.00	0.727	pCi/L	11/12/25 08:26	12/04/25 12:23	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.8		30 - 110	11/12/25 08:26	12/04/25 12:23	1

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Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: CCR-SP-3-110425

Lab Sample ID: 180-198159-3

Date Collected: 11/04/25 12:25

Matrix: Water

Date Received: 11/06/25 09:30

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

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	75.1		30 - 110	11/12/25 08:26	12/04/25 12:23	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Combined Radium 226 + 228	0.292	U	0.431	0.433	5.00	0.727	pCi/L		12/09/25 10:06	1

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

Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: DUP-1-110425

Lab Sample ID: 180-198159-4

Date Collected: 11/04/25 12:00

Matrix: Water

Date Received: 11/06/25 09:30

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			11/10/25 20:08	1
Fluoride	0.33		0.10	0.026	mg/L			11/10/25 20:08	1
Sulfate	53		1.0	0.76	mg/L			11/10/25 20:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.019	J	0.050	0.012	mg/L		11/17/25 11:06	11/18/25 00:04	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 16:35	1
Arsenic	0.0075		0.0050	0.00075	mg/L		11/12/25 14:00	11/13/25 16:35	1
Barium	0.081		0.0050	0.00077	mg/L		11/12/25 14:00	11/13/25 16:35	1
Beryllium	ND		0.0010	0.00027	mg/L		11/12/25 14:00	11/13/25 16:35	1
Cadmium	ND		0.0010	0.000077	mg/L		11/12/25 14:00	11/13/25 16:35	1
Calcium	98		1.0	0.25	mg/L		11/12/25 14:00	11/13/25 16:35	1
Chromium	ND		0.0050	0.0012	mg/L		11/12/25 14:00	11/13/25 16:35	1
Cobalt	0.00064	J	0.0010	0.000086	mg/L		11/12/25 14:00	11/13/25 16:35	1
Lead	ND		0.0010	0.00045	mg/L		11/12/25 14:00	11/13/25 16:35	1
Lithium	ND		0.0080	0.0034	mg/L		11/12/25 14:00	11/13/25 16:35	1
Molybdenum	0.0043	J	0.0050	0.0011	mg/L		11/12/25 14:00	11/13/25 16:35	1
Selenium	ND		0.0050	0.00089	mg/L		11/12/25 14:00	11/13/25 16:35	1
Thallium	ND		0.0010	0.00051	mg/L		11/12/25 14:00	11/13/25 16:35	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 09:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	460		10	10	mg/L			11/10/25 13:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 EPA 9040C)	7.0	HF	0.1	0.1	SU			11/08/25 10:53	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	0.557		0.229	0.234	1.00	0.241	pCi/L	11/12/25 08:16	12/05/25 14:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		30 - 110					11/12/25 08:16	12/05/25 14:58	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.523	U	0.491	0.493	1.00	0.786	pCi/L	11/12/25 08:26	12/04/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		30 - 110					11/12/25 08:26	12/04/25 12:23	1

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Client Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Client Sample ID: DUP-1-110425

Lab Sample ID: 180-198159-4

Date Collected: 11/04/25 12:00

Matrix: Water

Date Received: 11/06/25 09:30

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

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	76.6		30 - 110	11/12/25 08:26	12/04/25 12:23	1

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

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Combined Radium 226 + 228	1.08		0.542	0.546	5.00	0.786	pCi/L		12/09/25 10:06	1



QC Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

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

Method: EPA 6010D - Metals (ICP)

Lab Sample ID: MB 410-729239/1-A
Matrix: Water
Analysis Batch: 731308

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 729239

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.012	mg/L		11/17/25 11:06	11/17/25 23:02	1

Lab Sample ID: LCS 410-729239/2-A
Matrix: Water
Analysis Batch: 731308

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 729239

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.500	0.496		mg/L		99	83 - 119

QC Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

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

Lab Sample ID: LCSD 410-729239/3-A
 Matrix: Water
 Analysis Batch: 731308

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total Recoverable
 Prep Batch: 729239

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	0.500	0.482		mg/L		96	83 - 119	3	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

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

Method: EPA 7470A - Mercury (CVAA)

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

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QC Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Method: EPA 7470A - Mercury (CVAA)

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

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: 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

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

Lab Sample ID: MB 180-506088/1
 Matrix: Water
 Analysis Batch: 506088

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			11/10/25 13:41	1

Lab Sample ID: LCS 180-506088/2
 Matrix: Water
 Analysis Batch: 506088

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	252		mg/L		88	85 - 115

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-744947/1-A
 Matrix: Water
 Analysis Batch: 748059

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 744947

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.008681	U	0.167	0.167	1.00	0.330	pCi/L	11/12/25 08:16	12/05/25 09:59	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		30 - 110					11/12/25 08:16	12/05/25 09:59	1

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QC Sample Results

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

Job ID: 180-198159-1
 SDG: Semi-Annual

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

Lab Sample ID: LCS 160-744947/2-A
Matrix: Water
Analysis Batch: 748059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 744947

Analyte	Spike Added		LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226	9.57		10.21		1.25	1.00	0.300	pCi/L	107	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	86.1		30 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-744948/1-A
Matrix: Water
Analysis Batch: 747876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 744948

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2303	U	0.356	0.357	1.00	0.604	pCi/L	11/12/25 08:26	12/04/25 12:23	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		30 - 110					11/12/25 08:26	12/04/25 12:23	1
Y Carrier	82.6		30 - 110					11/12/25 08:26	12/04/25 12:23	1

Lab Sample ID: LCS 160-744948/2-A
Matrix: Water
Analysis Batch: 747876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 744948

Analyte	Spike Added		LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.88		7.131		1.09	1.00	0.544	pCi/L	90	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	86.1		30 - 110							
Y Carrier	82.6		30 - 110							

QC Association Summary

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

Job ID: 180-198159-1
 SDG: Semi-Annual

HPLC/IC

Analysis Batch: 506070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	EPA 9056A	
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	EPA 9056A	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	EPA 9056A	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	EPA 9056A	
180-198159-3	CCR-SP-3-110425	Total/NA	Water	EPA 9056A	
180-198159-4	DUP-1-110425	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	

Metals

Prep Batch: 680302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total Recoverable	Water	3005A	
180-198159-2	CCR-SP-2-110425	Total Recoverable	Water	3005A	
180-198159-3	CCR-SP-3-110425	Total Recoverable	Water	3005A	
180-198159-4	DUP-1-110425	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	

Analysis Batch: 680597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total Recoverable	Water	EPA 6020B	680302
180-198159-2	CCR-SP-2-110425	Total Recoverable	Water	EPA 6020B	680302
180-198159-3	CCR-SP-3-110425	Total Recoverable	Water	EPA 6020B	680302
180-198159-4	DUP-1-110425	Total Recoverable	Water	EPA 6020B	680302
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

Prep Batch: 729239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total Recoverable	Water	3005A	
180-198159-2	CCR-SP-2-110425	Total Recoverable	Water	3005A	
180-198159-3	CCR-SP-3-110425	Total Recoverable	Water	3005A	
180-198159-4	DUP-1-110425	Total Recoverable	Water	3005A	
MB 410-729239/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-729239/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 410-729239/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 731308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total Recoverable	Water	EPA 6010D	729239
180-198159-2	CCR-SP-2-110425	Total Recoverable	Water	EPA 6010D	729239
180-198159-3	CCR-SP-3-110425	Total Recoverable	Water	EPA 6010D	729239
180-198159-4	DUP-1-110425	Total Recoverable	Water	EPA 6010D	729239
MB 410-729239/1-A	Method Blank	Total Recoverable	Water	EPA 6010D	729239
LCS 410-729239/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6010D	729239
LCSD 410-729239/3-A	Lab Control Sample Dup	Total Recoverable	Water	EPA 6010D	729239

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QC Association Summary

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

Job ID: 180-198159-1
 SDG: Semi-Annual

Metals

Prep Batch: 731789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	7470A	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	7470A	
180-198159-3	CCR-SP-3-110425	Total/NA	Water	7470A	
180-198159-4	DUP-1-110425	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	

Analysis Batch: 732326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	EPA 7470A	731789
180-198159-2	CCR-SP-2-110425	Total/NA	Water	EPA 7470A	731789
180-198159-3	CCR-SP-3-110425	Total/NA	Water	EPA 7470A	731789
180-198159-4	DUP-1-110425	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

General Chemistry

Analysis Batch: 505988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	EPA 9040C	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	EPA 9040C	
180-198159-3	CCR-SP-3-110425	Total/NA	Water	EPA 9040C	
LCS 180-505988/24	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 506006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-4	DUP-1-110425	Total/NA	Water	EPA 9040C	
LCS 180-506006/1	Lab Control Sample	Total/NA	Water	EPA 9040C	

Analysis Batch: 506088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	SM 2540C	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	SM 2540C	
180-198159-3	CCR-SP-3-110425	Total/NA	Water	SM 2540C	
180-198159-4	DUP-1-110425	Total/NA	Water	SM 2540C	
MB 180-506088/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-506088/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Rad

Prep Batch: 744947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	PrecSep-21	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	PrecSep-21	
180-198159-3	CCR-SP-3-110425	Total/NA	Water	PrecSep-21	
180-198159-4	DUP-1-110425	Total/NA	Water	PrecSep-21	
MB 160-744947/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-744947/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

QC Association Summary

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

Job ID: 180-198159-1
SDG: Semi-Annual

Rad

Prep Batch: 744948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-198159-1	CCR-SP-1R-110425	Total/NA	Water	PrecSep_0	
180-198159-2	CCR-SP-2-110425	Total/NA	Water	PrecSep_0	
180-198159-3	CCR-SP-3-110425	Total/NA	Water	PrecSep_0	
180-198159-4	DUP-1-110425	Total/NA	Water	PrecSep_0	
MB 160-744948/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-744948/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

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

0.00

URL:

Svc: PRIORITY OVERNIGHT
Master 4642 5783 9524
TRK: 4642 5783 9616

ORIGIN ID: AGCA (864) 549-7656
LINDSEY GISH
CENTER POINT ENERGY
A.B. BROWN GENERATING STATION
8511 MELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

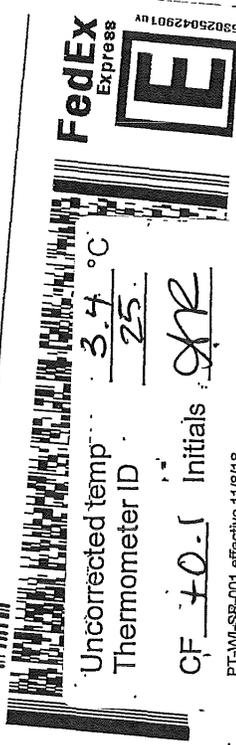
SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

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

PITTSBURGH PA 15238
(412) 963-7630

REF: RETURN

RMA: ||| ||| |||



Uncorrected temp 3.4 °C
Thermometer ID 25

CF +0.1 Initials XR

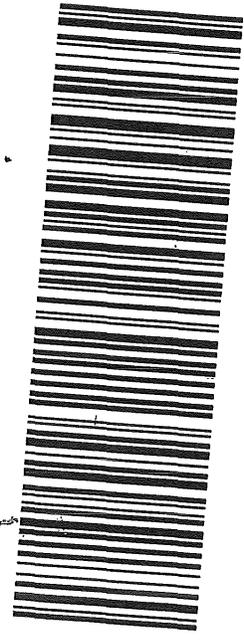
PT-WI-SR-001 effective 11/8/18

TRK# 4642 5783 9616
0221

THU - 06 NOV 10:30A
PRIORITY OVERNIGHT

NP AGCA

15238
PA-US PIT



#6190970 11/05 58HJ2/501C/59F2

ORIGIN ID: AGCA (864) 549-7656
LINDSEY GISH
CENTER POINT ENERGY
A.B. BROWN GENERATING STATION
8511 MELBORN ROAD
MOUNT VERNON, IN 47620
UNITED STATES US

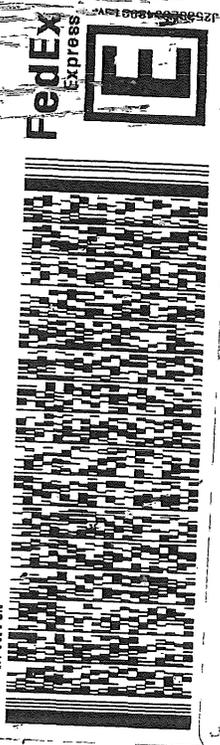
SHIP DATE: 29OCT25
ACTWGT: 35.00 LB MAN
CAD: 0522321/CAFE3953

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

PITTSBURGH PA 15238
(412) 963-7630

REF: RETURN

RMA: ||| ||| |||



Uncorrected temp 1.6 °C
Thermometer ID 28

CF +0.4 Initials SML

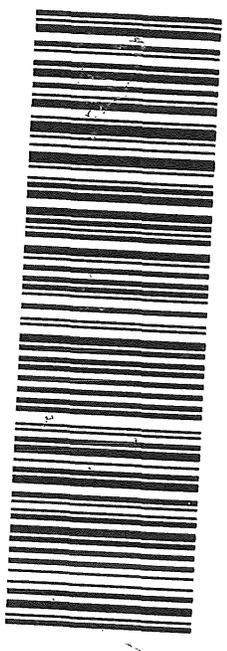
PT-WI-SR-001 effective 11/8/18

TRK# 4642 5783 9524
0221

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 SML

PT-WI-SR-001 effective 11/8/18



RETURN

Date: 29Oct25
Wgt: 35.00 LBS

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

DV:

os: PRIORITY OVERNIGHT Master 4642 5783 9524
TRCK: 4642 5783 9638

ORIGIN ID: AGCA (864) 549-7656
INDSEY GISH
CENTER POINT ENERGY
J. 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: III IIII III

Uncorrected temp
Thermometer ID

3.2 °C
25

CF +0.1 Initials *GR*

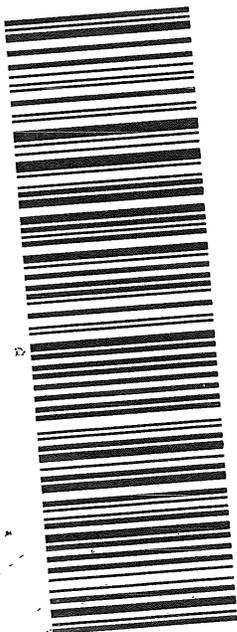
PT-WI-SR-001 effective 11/8/18

FedEx
Express



J253025042907 UV

PRIORITY OVERNIGHT
15238
PIT
PA-US



FedEx
TRK# 4642 5783 9638
0221

NP AGCA

46190970 11/05 58HJ2/501C/59F2

4180 THU 11/06 08:03
EUROFINS ENVIRO. TESTING PITT N.E.
301 ALPHA DR
PITTSBURGH PA
PRIORITY OVERNIGHT
15238-2907-01
E
6166225
198-1574FL
SP-D:100Y
SP-P:4320760001523800464257839638
EPR:6

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: N/A	Lab P.M.: Johnson, Andy	Carrier Tracking No(s): 180-548518-1								
Client Contact: Shipping/Receiving		Phone: N/A	E-Mail: Andy.Johnson@et.eurofins.com	Page: Page 1 of 1								
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): N/A		Job #: 180-198159-1								
Address: 13715 Rider Trail North,		Due Date Requested: 11/30/2025		Preservation Codes:								
City: Earth City		TAT Requested (days): N/A										
State/Zip: MO, 63045		PO #: N/A										
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #: N/A										
Email: N/A		Project #: 18016014										
Project Name: AB Brown Generating Station		SOW#: N/A										
Site: N/A												
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=on-site, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PreSep_21Radium-226 (GFC) by 9315 (21-day decay)	9320_Ra228/PreSep_0Radium-228 (GFC) by 9320	Ra226Ra228_GFPCombined Radium-226 and Radium-228	Analysis Requested	Total Number of containers	Special Instructions/Note:
CCR-SP-1R-110425 (180-198159-1)	11/4/25	10:50 Eastern	G	Water	X	X	X	X	X		2	
CCR-SP-2-110425 (180-198159-2)	11/4/25	08:50 Eastern	G	Water	X	X	X	X	X		2	
CCR-SP-3-110425 (180-198159-3)	11/4/25	12:25 Eastern	G	Water	X	X	X	X	X		2	
DUP-1-110425 (180-198159-4)	11/4/25	12:00 Eastern	G	Water	X	X	X	X	X		2	
<p>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/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.</p>												
<p>Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____</p>												
<p>Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____ Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Received by: Cheyenne Forrest Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____</p>												
<p>Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____ Δ Yes Δ No</p>												



Login Sample Receipt Checklist

Client: Haley & Aldrich Inc

Job Number: 180-198159-1

SDG Number: Semi-Annual

Login Number: 198159

List Number: 1

Creator: Abernathy, Eric L

List Source: Eurofins Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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: 180-198159-1

SDG Number: Semi-Annual

Login Number: 198159

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 \leq 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 <math><6\text{mm}</math> (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.

