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**DATE**  
31 October 2025

**SUBJECT**  
Thirteenth Post-Closure  
Groundwater Monitoring Report  
Second Quarter 2025  
Grand Tower Energy Center  
Closed Coal Combustion Residuals  
Impoundment  
1820 Power Plant Rd  
Grand Tower, IL 62942  
BOW ID No. W0770400003

**REFERENCE**  
ERM Project No. 0761817

To Whom it May Concern:

Environmental Resources Management Inc. (ERM) is submitting this report which provides the results and findings of the Grand Tower Energy Center (GTEC) quarterly post-closure groundwater sampling and closed coal combustion residuals (CCR) impoundment inspection event conducted during the second quarter 2025 at the GTEC facility located at 1820 Power Plant Rd, Grand Tower, Illinois (the "Site"). The second quarter groundwater sampling event took place between 24 June and 26 June 2025, and the closed impoundment inspection event was conducted on 26 June 2025. A Site location map is provided in Figure 1.

The second quarter 2025 groundwater sampling event was performed in accordance with the post-closure groundwater monitoring program presented within the Grand Tower Operating Permit Application (OPA) submitted to the Illinois Environmental Protection Administration (IEPA) on 28 October 2021, as modified in accordance with the Consolidated IEPA Comments dated 17 March 2022 and included in the updated Closure/Post-Closure Plan submitted to the IEPA with the 27 February 2024 response to the 23 January 2023 OPA comment letter from the IEPA. The purpose of the sampling event was to continue the initial five-year period of quarterly groundwater monitoring for the evaluation of the concentration and areal distribution of impacts related to the closed CCR impoundment in Site groundwater. The parameters detected in the groundwater are associated with the historical CCR impoundment, which was capped and closed in 2020. The quarterly results include a summary of field activities, laboratory analytical, and documentation of other associated Site activity, as necessary.

Second quarter 2025 site activities, performed in accordance with the proposed post-closure groundwater monitoring program, the results of which are summarized below, included:

- Inspection of the final cover system of the closed CCR impoundment.
- Inspection of the groundwater monitoring well array; and
- Groundwater monitoring activities.

### QUARTERLY CLOSED CCR IMPOUNDMENT INSPECTION

During the second quarter of 2025, an inspection of the closed CCR impoundment cover system and associated features was completed, and the full quarterly inspection report can be found in Appendix A. Woody vegetation (up to 1" diameter) was noted within the riprap around the toe of the side slope of the CCR impoundment cap faces. Additionally, woody vegetation was noted in the outfall channel, which allows discharge of water within the basin at the foot of the closed CCR side slope to the Mississippi River via an unnamed drainage ditch. Erosional channels on the west, south, and east faces were noted as less than 6" deep in the deepest locations and will be monitored during subsequent inspection events and recommendations made to repair these features, if necessary. No significant degradation or issues were noted associated with the overall closed CCR impoundment cover system.

### QUARTERLY MONITORING WELL INSPECTION AND GAUGING

During the second quarter of 2025, monitoring well inspections were conducted. The monitoring well protectors and casings were inspected for damage and/or signs of settling that might impact the integrity of the surface seals and/or the well casings. The inspection tasks also included gauging total depths as well as static groundwater elevations in all site wells. Both measurements were referenced from the top of casing (TOC) at each of the Site monitoring wells. Total depth and groundwater level measurements were obtained from the monitoring wells using a water level meter with an accuracy of 0.01 foot. The quarterly monitoring well inspection forms can be found in Appendix B. Based upon these measurements, a shallow groundwater contour map for the Site was developed for the second quarter of 2025. The groundwater gradient is primarily from east to west towards the Mississippi River except during times of flooding events that may cause a reverse flow from west to east for a short period of time (Natural Resource Technology, Phase 1 Hydrogeologic Assessment Report, March 2013). Figure 2 shows monitoring well locations with a groundwater contour and groundwater gradient direction arrow(s), groundwater elevations at each monitoring well, and the Mississippi River elevation at the time of groundwater level gauging.

## QUARTERLY GROUNDWATER MONITORING

The Groundwater Protection Standards (GWPS) for the Site are those provided in 35 IAC §845.600(a). Assessment of corrective measures began on 16 June 2022 with the commencement of the initial post-closure groundwater sampling event. During the second quarter 2025 sampling event, 12 monitoring wells (APW-01R, APW-02, APW-03, APW-04, APW-05R, APW-06D, APW-06S, APW-07, APW-08, APW-09, APW-10D, and APW-10S) were sampled.

The monitoring wells were purged prior to sampling using a submersible pump according to United States Environmental Protection Administration (USEPA) low flow purging and sampling procedures (“Low Stress Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells” revised September 19, 2017). The pump intake was placed within the screened interval of each monitoring well sampled and stabilization measurements were collected using a calibrated YSI ProDSS meter during purging activities for the collection of pH, specific conductivity, temperature, dissolved oxygen, and oxidation reduction potential (ORP) readings. Turbidity readings were also collected from each monitoring well using a Hach 2100Q Turbidimeter. Well purging continued until stabilization of each field parameter was achieved according to USEPA guidelines for low-flow sampling. Once the field parameters stabilized, the YSI meter was disconnected, and groundwater samples were collected for analysis using the same dedicated polyethylene tubing that was used to purge the well. Field parameter measurements collected during this sampling event were recorded on field data forms. Copies of the field data forms are included in Appendix C.

The groundwater samples collected were placed in laboratory-provided sample containers for analysis by Pace Analytical located in Mt. Juliet, TN, which is an IEPA-approved laboratory. Samples were transported via FedEx under chain-of-custody procedures to the laboratory for analytical testing within laboratory provided coolers containing ice. The laboratory analytical reports for the second quarter 2025 sampling event are included in Appendices D & E.

In accordance with the 3 March 2022 draft comments received from the IEPA Groundwater Section associated with the post-closure groundwater monitoring program contained in the Operating Permit Application submitted to the IEPA on 28 October 2021, the IEPA evaluates the efficacy of corrective actions for closed CCR impoundments through the comparison of the groundwater analytical results to the GWPS contained in 35 IAC §845.600. Under 35 IAC §845.600, the following groundwater parameters are to be monitored:

- Antimony
- Arsenic
- Barium
- Beryllium
- Boron
- Cadmium
- Chloride
- Chromium
- Cobalt
- Fluoride
- Lead
- Lithium
- Mercury
- Molybdenum
- pH
- Selenium
- Sulfate
- Thallium
- TDS
- Radium 226/228
- Calcium
- Turbidity

## GROUNDWATER ANALYTICAL RESULTS

The analytical results for the post-closure groundwater sampling event conducted during the second quarter 2025 are presented in Table 1. During the second quarter 2025 sampling event, the following analytes and/or field parameters were detected in the listed wells above the GWPS:

- Arsenic: APW-02, APW-06D, APW-10S
- Boron: APW-02, APW-03, APW-05R, APW-06D, APW-06S,
- Calcium: APW-02, APW-03, APW-04, APW-05R, APW-06D, APW-06S, APW-07, APW-08, APW-10D, APW-10S
- Lead: APW-02,
- Lithium: APW-02,
- Molybdenum: APW-02, APW-05R, APW-06S,
- Sulfate: APW-02,
- Turbidity: APW-01R, APW-02, APW-04, APW-06S, APW-09, APW-10D, APW-10S

APW-10S, located approximately one-half mile south of the closed CCR impoundment, continues to exhibit elevated arsenic concentrations. However, the occurrence of arsenic in this well is not considered to be related to the closed CCR impoundment due to its distance and location hydraulically side gradient in relation to the Site. Additionally, the monitoring wells located between the closed CCR impoundment (APW-03, APW-07, APW-08, APW-09, and APW-10D) and APW-10S, do not exhibit arsenic concentration above the GWPS.

The GTEC closed CCR impoundment is currently in Corrective Action Monitoring (CAM). As reported in the *2024 Annual Groundwater Monitoring Report - Grand Tower Energy Center* submitted by ERM and dated January 2025, statistical analysis conducted on the data collected from the first eleven quarters of post-closure monitoring (2<sup>nd</sup> quarter 2022 through 4<sup>th</sup> quarter 2024) indicates that arsenic, boron, lithium, molybdenum, and sulfate exceed the calculated background concentrations and the IEPA GWPS established in 35 IAC Section 845.600 in monitoring wells at the

Site. Statistical analysis of the groundwater sampling results will continue to be completed on an annual basis to evaluate if statistically significant increases or decreases have occurred after cap and closure occurred in 2020 in accordance with 35 IAC Section §845.640(f). In accordance with 35 IAC Section §845.550(a) an Annual Groundwater Monitoring and Corrective Action Report will be submitted for 2025 by or before 31 January 2026.

At the end of the current five-year monitoring and reporting post-closure time frame, a groundwater performance monitoring report will be submitted to IEPA to either demonstrate restoration of groundwater quality to Class I standards or present a continued groundwater monitoring plan for an additional five years. In addition, the results will be compared to the modeled concentrations to evaluate if a decreasing trend, as defined through modeling, is occurring at the predicted rate. Significant changes from the model results will lead to additional calibration and assessment of future expected rates of decrease for the constituents of concern (COCs).


## SUMMARY AND CONCLUSIONS

Based upon the results of the second quarter 2025 groundwater sampling event, well inspection, and closed CCR impoundment inspection, the following observations and conclusions have been made:


- Similar to the groundwater sampling results obtained during the eight pre-closure sampling events in 2017 to 2018, and 13 post-closure groundwater sampling events, concentrations of COCs above the GWPS continue to be detected at well locations downgradient of the closed CCR impoundment.
- Boron has historically been the key indicator for corrective action and continued monitoring of groundwater at the Site. Incorporating data from the eight rounds of pre-closure groundwater sampling conducted during 2017 and 2018, as well as the 13 post groundwater monitoring events, boron concentrations have shown a decreasing trend in Site monitoring wells.
- During the Q2 2025 event, woody vegetation was observed in the riprap, less than 1" thick in diameter. Continued monitoring of woody growth, and treatment recommendation will take place during subsequent quarterly sampling events.

If you have any questions, please contact me at (314) 447-7237.

Sincerely,



Randy Homburg  
Managing Consultant



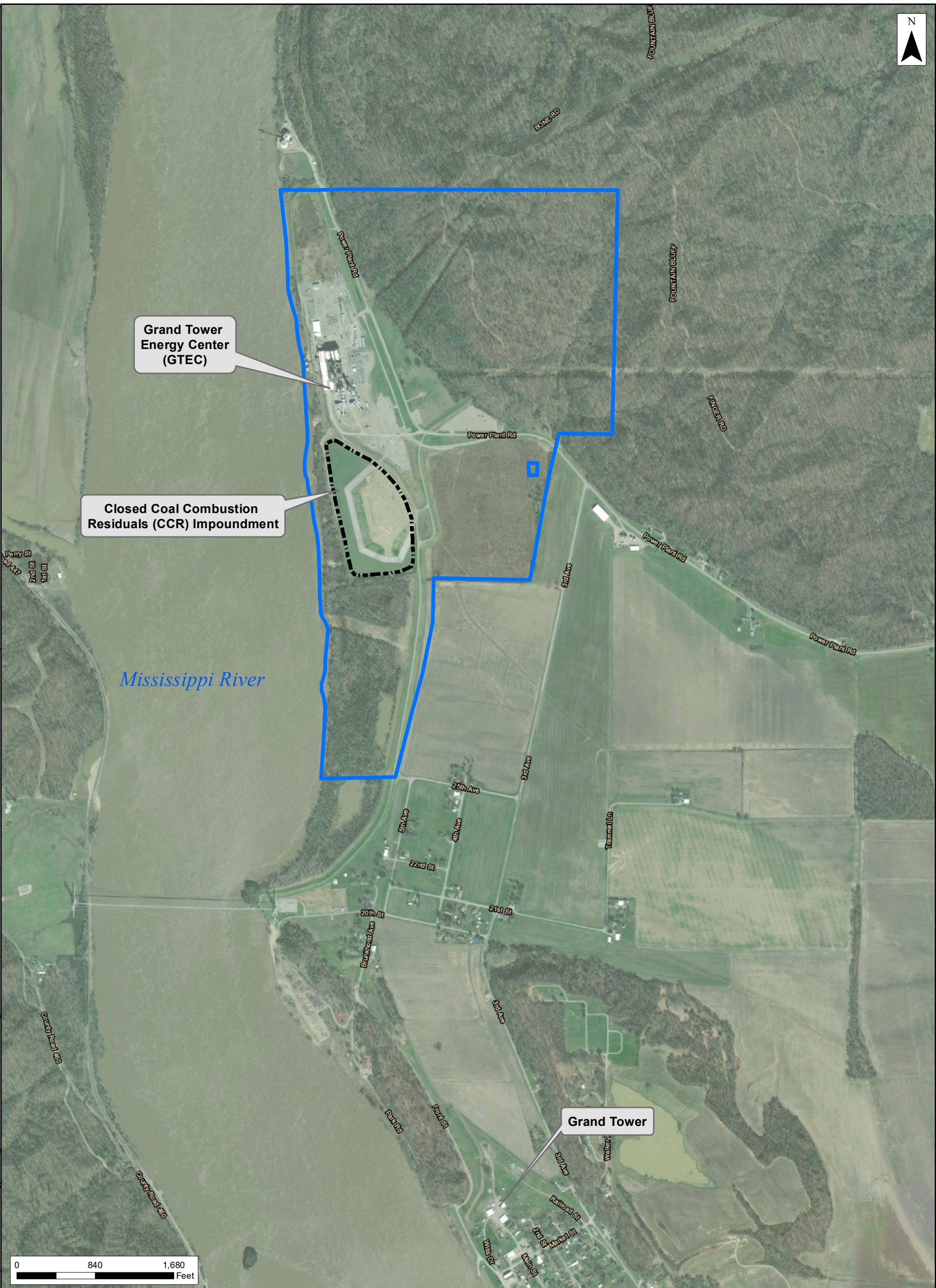
Wayne T. Sicora, P.E.  
Principal Engineer

Attachments

cc: Mr. Bob Henderson, Perdomo - Grand Tower Energy Center (electronic)

## FIGURES

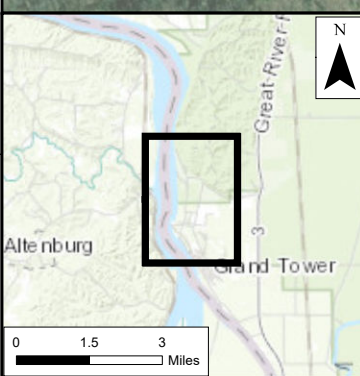
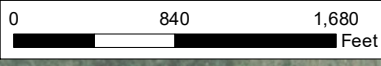
FILE: \\usbdfs02\data\Philadelphia\Team\DM\GIS\Projects\Grand Tower Energy Center\ MXD\FIGURE1-SITELLOCATIONMAP\_20221003.mxd | REVISED: 10/03/2022 | SCALE: 1:12,000 when printed at 11x17



Grand Tower Energy Center (GTEC)

Closed Coal Combustion Residuals (CCR) Impoundment

Grand Tower



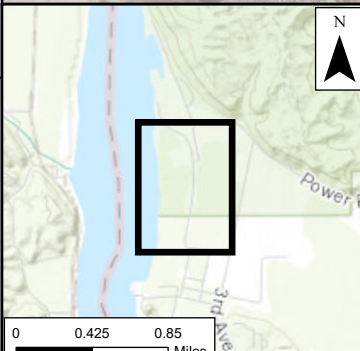
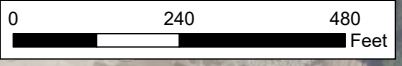
- Legend**
- Closed Coal Combustion Residuals (CCR) Impoundment
  - Approximate Parcel Boundary

Notes:  
 1. CCR Surface Impoundment Closed Prior to July 31, 2021  
 2. World Imagery (3/24/2021)

**Figure 1**  
**Site Location Map**  
 Grand Tower Energy Center, LLC  
 Grand Tower, Illinois  
 Jackson County



\*Mississippi River Elevation = 342.55 Ft



- Legend**
- Monitoring Well Location
  - Groundwater Contour (0.25 Ft. Interval) - Dashed where inferred
  - Groundwater Flow Direction
  - 328.84 Groundwater Elevation

- Notes:**
1. CCR Surface Impoundment Closed Prior to July 31, 2021
  2. Date of gauging - June 24, 2025
  3. Ft AMSL - Feet Above Mean Sea Level
  4. (D) - Designated Wells not used in contouring
  5. \* River stage at Mississippi River Gauge at Grand Tower, IL (NGVD29) (<https://rivergages.mvr.usace.army.mil/WaterControl/shefdata2.cfm?sid=CE358576&d=31&dt=E>)
  6. BING Imagery, 2022
  7. APW-06D not used in contouring.

**Figure 2: Second Quarter 2025 Groundwater Contour Map**  
 Grand Tower Energy Center, LLC  
 Grand Tower, Illinois  
 Jackson County



## TABLES

**Table 1  
Groundwater Summary Table  
Grand Tower Energy Center (GTEC)**

Grand Tower, US-IL			Sampled prior to closure of CER Impoundment														Post-Closure Sampling										
Sample ID Location ID Sample Date Sample Type	APW-1R-20170901 APW-01R 09/05/2017 N	APW-1R-20170902 APW-01R 09/27/2017 N	APW-1R-20171018 APW-01R 10/18/2017 N	APW-1R-20171108 APW-01R 11/08/2017 N	APW-1R-20171127 APW-01R 11/27/2017 N	APW-1R-20171228 APW-01R 12/28/2017 N	APW-1R-20180117 APW-01R 01/17/2018 N	APW-1R-20180201 APW-01R 02/07/2018 N	APW-1R-WG-20220615 APW-01R 06/15/2022 N	APW-1R-WG-20220915 APW-01R 09/15/2022 N	APW-1R-WG-20221130 APW-01R 11/30/2022 N	APW-1R-WG-20230201 APW-01R 02/02/2023 N	APW-1R-WG-20230627 APW-01R 06/27/2023 N	APW-1R-WG-20230920 APW-01R 09/20/2023 N	APW-1R-WG-20231129 APW-01R 11/29/2023 N	APW-1R-WG-20240110 APW-01R 01/10/2024 N	APW-1R-WG-20240501 APW-01R 05/01/2024 N	APW-1R-WG-20240905 APW-01R 09/05/2024 N	APW-1R-WG-20241015 APW-01R 10/15/2024 N	APW-1R-WG-20250115 APW-01R 01/15/2025 N	APW-1R-WG-20250625 APW-01R 06/25/2025 N						
Parameter/Analyte	Total of Dissolve d	Units	35 IAC R45-600																								
<b>UNSPECIFIED</b>																											
Fluoride	N	mg/L	4	0.15	0.17	0.16	0.17	0.14	0.15	0.18	0.16	0.21	0.15	0.18	0.17	0.14	0.17	0.183	0.328	0.201	0.15 U	0.159					
Radium-226	N	pCi/L	NS	0.25 ± 12 U	0.18 ± 09 U	0.307 ± 320	0.13 ± 0.43 U	0.07 ± 0.16 U	0.23 ± 0.1 U	0.03 ± 0.07 U	-0.04 ± 0.08 U	0.28 ± 0.1 U	0.4 ± 0.12 U	0.16 ± 0.169 U	0.27 ± 0.11 U	0.32 ± 0.11 U	0.24 ± 0.08 U	0.738 ± 0.354	0.383 ± 0.294	0.167 ± 0.164 U	0.126 ± 0.144 U	0.017 ± 0.0838 U					
Radium-228	N	pCi/L	NS	2.79 ± 98	0.51 ± 39 U	0.12 ± 332	0.57 ± 0.33 U	0.47 ± 0.34 U	0.04 ± 0.34 U	0.98 ± 0.62 U	0.27 ± 0.34 U	0.661 ± 0.257	0.43 ± 0.49 UOM	0.41 ± 0.56 U	0.531 ± 0.284	0.85 ± 0.61 U	0.32 ± 0.56 U	1.44 ± 0.229	0.671 ± 0.262	0.199 ± 0.295 U	0.183 ± 0.206 U	0.524 ± 0.295					
Cyfrin	N	mg/L	880	81	65	65	58	58	88	78	79	33	73 S	169	78	79	68 S	61.7	38	58.5	81.8	25.1					
<b>CALC</b>																											
Radium-226/228	N	pCi/L	7,002	7.54 ± 1.1	0.69 ± 0.48 U	0.427 ± 0.652	0.7 ± 0.76 U	0.47 ± 0.7 U	0.27 ± 0.44 U	1.01 ± 0.69 U	0.22 ± 0.42 U	0.693 ± 0.293	0.67 ± 0.59 U	0.81 ± 0.68 U	0.691 ± 0.330	1.12 ± 0.72 U	0.64 ± 0.67 U	1.21 ± 0.75 U	2.18 ± 0.422	1.05 ± 0.394	0.167 ± 0.338 U	0.309 ± 0.251 U	0.946 ± 0.307				
<b>FIELD PARAM</b>																											
Turbidity, Field	N	NTU	17.96									33.9	31.7	31.7	89.5	133	95.6	25.6	71.3	18.2	16.8	8.95	47.6				
<b>GEN CHEM</b>																											
Chloride	N	mg/L	200	5 U	5 U	5 U	5 U	9	11	10	2	7	7	7	41 U	5	9.07	7.19	4.1 U	1.97	6.15	9.52	1.1				
Dissolved Solids, Total	N	mg/L	1200	400	428	376	358 R	412	474	434	392	342	470 H	385	384	328	385	300	385	439	372	305	302				
Total Solids	N	mg/L	1200	6.64	6.54	6.6	6.8	7.11	6.96	7.09	6.52	6.98	6.8	6.43	6.57	6.53 H	6.66 H	6.59 H	7.04 TR	6.88 TR	6.85 TR	7.25 TR	7.18 TR				
<b>METALS</b>																											
Antimony	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U				
Antimony	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U				
Arsenic	D	mg/L	0.01									0.0012	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Arsenic	T	mg/L	0.01	0.0012	0.001 U	0.0012	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Barium	D	mg/L	2									0.16	0.153	0.162 B	0.152	0.164	0.21	0.245	0.159	0.194 F1	0.154	0.152	0.135				
Barium	T	mg/L	2	0.168	0.193	0.171	0.176	0.165	0.178	0.182	0.18	0.192	0.185	0.178	0.168	0.202	0.169	0.208	0.165	0.208	0.155	0.168	0.148				
Beryllium	D	mg/L	0.004									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Beryllium	T	mg/L	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Boron	D	mg/L	2									0.163	0.244	0.219	0.205	0.204	0.229	0.205	0.238 F1	0.205	0.238	0.21	0.21				
Boron	T	mg/L	2	0.218	0.251	0.238	0.211	0.225	0.329	0.357	0.311	0.228	0.242	0.222	0.221	0.176	0.263	0.18	0.247	0.21	0.242	0.244	0.21 U				
Cadmium	D	mg/L	0.005									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	T	mg/L	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U				
Calcium	D	mg/L	103.2									85.6	83.8 S	73.9	71.4	66.4	72.1	57.6	78.6	101 F1	94.1	91.1	89.8				
Calcium	T	mg/L	103.2	84.3 S	93.5	86.2 S	88.2	91.2 S	91	97.1	85.8 S	89.3	81.4	79.7	75.5 S	66.8 B	59.2	78.4	98	89.5	89.5	85.4	89.4				
Chromium	D	mg/L	0.1									0.0009 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Chromium	T	mg/L	0.1	0.0021	0.0021	0.0021	0.001 U	0.001 U	0.0018	0.0015	0.0015	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021				
Cobalt	D	mg/L	0.006									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				
Cobalt	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017				
Copper	D	mg/L	NS																								
Copper	T	mg/L	NS																								
Lead	D	mg/L	0.0075									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Lead	T	mg/L	0.0075	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U				
Lithium	D	mg/L	0.04									0.0127	0.0156	0.0139	0.0135	0.015	0.0211	0.0193	0.014	0.0143 F1	0.013	0.0165	0.0121				
Lithium	T	mg/L	0.04	0.0155	0.018	0.0173	0.0175	0.018	0.0179	0.0164	0.0159	0.0171	0.0169	0.0155	0.0167	0.0147	0.0189	0.0153	0.015	0.0133	0.0152	0.0154	0.0124				
Manganese	D	mg/L	NS																								
Manganese	T	mg/L	NS									0.139															
Mercury	D	mg/L	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				
Mercury	T	mg/L	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	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	D	mg/L	0.1									0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U				
Molybdenum	T	mg/L	0.1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U				
Nickel	D	mg/L	NS									0.004															
Nickel	T	mg/L	NS	0.0044	0.0062	0.0054	0.004	0.0038	0.0046	0.005	0.0052	0.0083															
Selenium	D	mg/L	0.05									0.0028	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032				
Selenium	T	mg/L	0.05	0.0038	0.004	0.0034	0.0044	0.0041	0.004	0.004	0.004	0.0037	0.0038	0.0038	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037	0.0037				
Thallium	D	mg/L	0.002									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				
Thallium	T	mg/L	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	0.002 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				

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 pCi/L = picocuries per liter  
 NTU = nephelometric turbidity units  
 H = Holding times exceeded  
 U = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 13 = The associated batch OC was outside the established quality control range for precision  
 36 = The sample matrix interfered with the ability to make an accurate determination; solk value is low  
 S = Solk Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 TR = Sample received past too close to holding time expiration  
 1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit

**Table 3**  
**Groundwater Summary Table**  
**Grand Tronk Resource Center (GTRC)**

Parameter/Analyte	Total or Dissolve in Units	Sampled prior to closure of CCR Impoundment																	Peak Closure Sampling																			
		Sample ID Location ID Sample Date Sample Type	APW-2-20170901 APW-02 09/06/2017 N	APW-2-20170921 APW-02 09/28/2017 N	APW-2-20171001 APW-02 10/01/2017 N	APW-2-20171101 APW-02 11/09/2017 N	APW-2-20171129 APW-02 12/27/2017 N	APW-2-20180119 APW-02 01/19/2018 N	APW-2-20180201 APW-02 02/17/2018 N	APW-02 06/16/2022 N	APW-02 09/14/2022 N	DUP-02-WG-2022091 APW-02 09/14/2022 FD	APW-02 11/29/2022 N	DUP-02-WG-20221129 APW-02 11/29/2022 FD	APW-02-WG-2023020 APW-02 02/01/2023 N	DUP-02-WG-2023020 APW-02 02/01/2023 FD	APW-02-WG-2023067 APW-02 06/27/2023 N	DUP-02-WG-2023067 APW-02 06/27/2023 FD	APW-02-WG-2023092 APW-02 09/20/2023 N	APW-02-WG-20231129 APW-02 11/28/2023 N	APW-02-WG-20240110 APW-02 01/10/2024 N	APW-02-WG-20240501 APW-02 05/01/2024 N	APW-02-WG-20240901 APW-02 09/05/2024 N	APW-02-WG-20241019 APW-02 10/19/2024 N	APW-02-WG-20250119 APW-02 01/19/2025 N	APW-02-WG-20250626 APW-02 06/26/2025 N												
<b>UNSPECIFIED</b>																																						
Fluoride	m	mg/L	0.24	0.26	0.25	0.24	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25	0.24	0.25
Sulfate	m	mg/L	1.06 ± 0.21	0.63 ± 0.11	0.132 ± 0.410	0.47 ± 0.26	0.33 ± 0.12 U	0.42 ± 0.15 U	0.27 ± 0.21 J	0.159 ± 0.181 J	0.27 ± 0.1 UODR	0.44 ± 0.07 U	0.4 ± 0.14 U	0.35 ± 0.12 U	0.0737 ± 0.256 U	0.175 ± 0.279 J	0.24 ± 0.11 U	0.09 ± 0.07 U	0.38 ± 0.12 U	0.12 ± 0.06 U	0.0909 ± 0.186 U	0.426 ± 0.259	0.402 ± 0.233	1.29 ± 0.447	0.301 ± 0.253	0.457 ± 0.284	0.301 ± 0.253	0.457 ± 0.284	0.301 ± 0.253	0.457 ± 0.284	0.301 ± 0.253	0.457 ± 0.284	0.301 ± 0.253	0.457 ± 0.284	0.301 ± 0.253	0.457 ± 0.284	0.301 ± 0.253	0.457 ± 0.284
Sulfate	m	mg/L	1.98 ± 0.05	0.01 ± 0.6 U	0.504 ± 0.378	0.91 ± 0.36 J	0.05 ± 0.52 J	1.08 ± 0.59	0.29 ± 0.51 J	0.308 ± 0.236 3U	0.4 ± 0.48 UODR	2.81 ± 1.03	0.24 ± 0.44 U	1.07 ± 0.466	0.081 ± 0.290	1.21 ± 0.53	0.13 ± 0.52 U	1.37 ± 0.53	0.56 ± 0.61 U	0.243 ± 0.202 J	0.366 ± 0.129	1.15 ± 0.464	0.428 ± 0.450 U	1.98 ± 0.774	1.13 ± 0.871 J	1.98 ± 0.774	1.13 ± 0.871 J	1.98 ± 0.774	1.13 ± 0.871 J	1.98 ± 0.774	1.13 ± 0.871 J	1.98 ± 0.774	1.13 ± 0.871 J	1.98 ± 0.774	1.13 ± 0.871 J	1.98 ± 0.774	1.13 ± 0.871 J	
<b>CALC</b>																																						
Sulfate-270728	N	mg/L	17.002	0.04 ± 1.16	0.03 ± 0.7 U	0.504 ± 0.298	2.38 ± 0.62	1.28 ± 0.64 U	1.55 ± 0.74 U	1.56 ± 0.73 U	0.467 ± 0.297 J	0.47 ± 0.58 U	1.95 ± 1.1	0.74 ± 0.58 U	1.14 ± 0.532	1.16 ± 0.402	0.24 ± 0.7 U	1.13 ± 0.59 U	1.09 ± 1.05	0.68 ± 0.7 U	0.333 ± 0.275 J	1.39 ± 0.419	1.55 ± 0.519	1.51 ± 0.634	1.39 ± 0.419	1.55 ± 0.519	1.51 ± 0.634	1.39 ± 0.419	1.55 ± 0.519	1.51 ± 0.634	1.39 ± 0.419	1.55 ± 0.519	1.51 ± 0.634	1.39 ± 0.419	1.55 ± 0.519	1.51 ± 0.634		
<b>FIELD PARAM</b>																																						
pH	N	unit	7.96																																			
<b>GEN CHEM</b>																																						
Chloride	m	mg/L	2.07	1.3	1.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>METALS</b>																																						
Antimony	m	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138	0.0138
As	m	mg/L	0.11	0.0198	0.0147	0.0172	0.017	0.0168	0.0157	0.0148	0.014	0.0138																										

**Table 1**  
**Groundwater Summary Table**  
**Grand Tower Energy Center (GTEC)**  
**Grand Tower, US-IL**

Parameter/Analyte	Total or Dissolved	Units	35 IAC 845.600	Sampled prior to closure of CCR Impoundment											Post-Closure Sampling									
				APW-3-20170907 APW-03 09/06/2017 N	APW-3-20170929 APW-03 09/29/2017 N	APW-3-20171020 APW-03 10/20/2017 N	APW-3-20171110 APW-03 11/10/2017 N	APW-3-20171129 APW-03 11/29/2017 N	APW-3-20171228 APW-03 12/28/2017 N	APW-3-20180119 APW-03 01/19/2018 N	APW-3-20180208 APW-03 02/08/2018 N	APW-03-WG-2020618 APW-03 06/16/2022 N	APW-03-WG-2020915 APW-03 09/15/2022 N	APW-03-WG-2022130 APW-03 11/30/2022 N	APW-03-WG-20230130 APW-03 01/30/2023 N	APW-03-WG-20230626 APW-03 06/26/2023 N	APW-03-WG-20230919 APW-03 09/19/2023 N	APW-03-WG-20231127 APW-03 11/27/2023 N	APW-03-WG-20240111 APW-03 01/11/2024 N	APW-03-WG-20240430 APW-03 04/30/2024 N	APW-03-WG-20240904 APW-03 09/04/2024 N	APW-03-WG-20241016 APW-03 10/16/2024 N	APW-03-WG-20250116 APW-03 01/16/2025 N	APW-03-WG-20250625 APW-03 06/25/2025 N
<b>UNSPECIFIED</b>																								
Fluoride	N	mg/L	4	0.28	0.29	0.29	0.31	0.27	0.29	0.29	0.34	0.26	0.2	0.26	0.23	0.25	0.24	0.202	0.285	0.15 U	0.254	0.263		
Radium-226	N	pCi/L	NS	0.53 ± 18 U	0.04 ± 0.09 U	0.409 ± 0.426	0.18 ± 0.11 U	0.33 ± 0.17 U	0.2 ± 0.1 U	0.1 ± 0.1 U	0.31 ± 0.15 U	0.201 ± 0.155	0.56 ± 0.13 U	0.19 ± 0.1 U	0.293 ± 0.212	0.23 ± 0.11 U	0.2 ± 0.09 U	0.11 ± 0.05 U	3.18 ± 0.675	0.594 ± 0.383	0.493 ± 0.251	0.0651 ± 0.146 U	0.026 ± 0.120 U	0.451 ± 0.313
Radium-228	N	pCi/L	NS	2.05 ± 96	1.01 ± 0.57	0.492 ± 0.373	0.72 ± 0.37 U	0.31 ± 0.49 U	0.32 ± 0.44 U	1.32 ± 0.68	0.06 ± 0.36 U	1.89 ± 0.26 U	0.4 ± 0.5 UODR	0.67 ± 0.59 U	0.119 ± 0.430 U	0.61 ± 0.54 U	0.85 ± 0.52 U	0.66 ± 0.58 UODR	0.0217 ± 0.241 U	0.585 ± 0.256	1.4 ± 0.319	1.09 ± 0.261	0.688 ± 0.382	0.702 ± 0.515 U
Sulfate	N	mg/L	400	175	222	201	207	204	168	152	194	393	150	226	292	280	133	80.1	285	259	227	249	261	
<b>CALC</b>																								
Residue 236/238	N	ppm	7.002	2.58 ± 1.14	1.05 ± 0.66 U	0.901 ± 0.798	0.9 ± 0.48 U	0.64 ± 0.66 U	0.57 ± 0.54 U	1.42 ± 0.78 U	0.37 ± 0.51 U	2.09 ± 0.303	0.96 ± 0.63 U	0.86 ± 0.69 U	0.412 ± 0.479 U	0.84 ± 0.65 U	1.05 ± 0.61 U	0.77 ± 0.63 U	3.18 ± 0.712	1.18 ± 0.461	1.9 ± 0.406	1.15 ± 0.298	0.794 ± 0.400	1.15 ± 0.603
<b>FIELD PARAM</b>																								
Turbidity, Field	N	NTU	17.96									40.3	56.1	103	50.7	6.04	2.72	4	2.53	1.94	4.48	7.69	17.34	
<b>GEN CHEM</b>																								
Dissolved Solids, Total	N	mg/L	1200	22	21	22	19	20	16	23	20	16	20	21	17	16	8.04	15	11.6	10.5	10.4	6.54		
pH, Lab	N	pH unit	9	7.88	7.46	7.65	7.93	7.5	7.48	7.26	7.78	7.85	7.46	7.21	7.77 H	7.84 H	7.24 H	7.88 TR	7.94 TR	8.08 TR	8.11 TR	7.34		
<b>METALS</b>																								
Antimony	D	mg/L	0.006										0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0018	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Arsenic	D	mg/L	0.01										0.0015	0.0014	0.0024	0.002	0.0016	0.0019	0.0013	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Barium	D	mg/L	2										0.0022	0.0029	0.0024	0.0028	0.0018	0.002	0.0059	0.002	0.004 U	0.004 U	0.004 U	0.004 U
Beryllium	D	mg/L	0.004										0.0011	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.0017	0.00254	0.002 U	0.002 U	0.002 U	0.002 U
Bismuth	D	mg/L	0.004										0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Boron	D	mg/L	2	4.16	4.21 S	4.7	4.67	4.44 S	4.52	4.08	4.07	4.84	4.23	4.99	4.98	4.41	4.69	4.51	4.67	4.28	4.41	4.74	4.49	
Cadmium	D	mg/L	0.005										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
Calcium	D	mg/L	103.2										174	125	101	121	111	123	125 F1	123	121	116	115 U	
Calcium	T	mg/L	103.2	86.3	104 S	88.1	74.9	116 S	95	101	77.1	143	143	115	111	159 P	174 S	174	174	175	173	174	116	
Chromium	D	mg/L	0.1										0.0011 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Chromium	D	mg/L	0.1	0.0081	0.0053	0.0026	0.001 U	0.005	0.0025	0.001 U	0.0044	0.0083	0.0118	0.0241	0.0019	0.0241	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	D	mg/L	0.006										0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	T	mg/L	0.006	0.001 U	0.0015	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0014	0.0021	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Copper	D	mg/L	NS																	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	T	mg/L	NS																	0.367	0.002 U	0.002 U	0.002 U	0.002 U
Lead	D	mg/L	0.0075										1.66	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U
Lead	T	mg/L	0.0075	0.0021	0.0042	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0023	0.0029	0.0029	0.0044	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Lithium	D	mg/L	0.04										0.0338	0.0288	0.0266	0.0275	0.0406	0.0256	0.0281	0.0289 F1	0.0314	0.0297	0.0314	
Lithium	T	mg/L	0.04	0.0258	0.0262	0.0259	0.0245	0.0308	0.027	0.035	0.0239	0.0361	0.0329	0.029	0.0276	0.0312	0.0324	0.0316	0.0327	0.0315	0.0328	0.0307	0.029	
Manganese	D	mg/L	NS																	0.438	0.002 U	0.002 U	0.002 U	0.002 U
Manganese	T	mg/L	NS																	0.435	0.002 U	0.002 U	0.002 U	0.002 U
Mercury	D	mg/L	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	
Mercury	T	mg/L	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	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	D	mg/L	0.1										0.057	0.0648	0.0521	0.0656	0.0487	0.0303	0.0274	0.0642 F1	0.0656	0.0626	0.0656	0.058
Molybdenum	T	mg/L	0.1	0.0778	0.0754	0.0761	0.0713	0.0684	0.0748	0.0824	0.0849	0.0601	0.0413	0.0621	0.0528	0.0553	0.0588	0.0319	0.0262	0.0608	0.0656	0.0608	0.0673	0.06
Nickel	D	mg/L	NS																	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Nickel	T	mg/L	NS	0.0055	0.0051	0.0019	0.001 U	0.001 U	0.0026	0.0025	0.001	0.0033	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Selenium	D	mg/L	0.05																	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Selenium	T	mg/L	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0019	0.002 U	0.002 U	0.002 U	0.002 U
Thallium	D	mg/L	0.002																	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Thallium	T	mg/L	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	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 pCi/L = picocuries per liter  
 NTU = nephelometric turbidity units  
 H = Holding times exceeded  
 J = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 13 = The associated batch OC was outside the established quality control range for precision  
 16 = The sample matrix interfered with the ability to make any accurate determination; spike value is low  
 S = Spike Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 TB = Sample received past/too close to holding time expiration

1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit  
 3 Eight episodes of groundwater sampling were highlighted values exceed action level  
 NS = No standard

**Table 1**  
**Groundwater Summary Table**  
**Grand Tower Energy Center (GTEC)**  
**Grand Tower, US-IL**

Parameter/Analyte	Total or Dissolved	Units	35 IAC 845.600	Sampled prior to closure of CCR Impoundment										Post-Closure Sampling													
				APW-4-20170907	APW-4-20170929	APW-4-20171019	APW-4-20171108	APW-4-20171128	APW-4-20180119	APW-4-20180208	APW-4-20180209	APW-4-20180219	APW-4-20180220	APW-4-20180221	APW-4-20180222	APW-4-20180223	APW-4-20180224	APW-4-20180225	APW-4-20180226	APW-4-20180227	APW-4-20180228	APW-4-20180229	APW-4-20180230				
Location ID	Sample Date	Sample Type		09/08/2017	09/29/2017	10/19/2017	11/08/2017	11/28/2017	12/28/2017	01/19/2018	02/08/2018	06/15/2022	09/15/2022	11/28/2022	02/02/2023	06/27/2023	09/20/2023	11/30/2023	01/10/2024	05/01/2024	09/04/2024	10/17/2024	01/14/2025	06/25/2025			
<b>UNSPECIFIED</b>																											
Fluoride	N	mg/L	4	0.18	0.19	0.18	0.17	0.18	0.17	0.17	0.16	0.2	0.17	0.17	0.15	0.16	0.15	0.18	0.17	0.20	0.178	0.15 U	0.15 U	0.167			
Radium-226	N	pCi/L	NS	0.38 ± 0.16 U	0.02 ± 0.08 U	0.272 ± 0.328	0.15 ± 0.09 U	0.09 ± 0.13 U	0.17 ± 0.09 U	0.05 ± 0.08 U	0.13 ± 0.11 U	0.102 ± 0.164 U	0.5 ± 0.13 U	0.11 ± 0.08 U	0.352 ± 0.232	0.33 ± 0.12 U	0.09 ± 0.07 U	0.19 ± 0.07 U	0.223 ± 0.242 U	0.146 ± 0.275 U	0.302 ± 0.252	0.116 ± 0.132 U	0.0629 ± 0.123 U	0.0133 ± 0.154 U			
Radium-228	N	pCi/L	NS	0.35 ± 0.64 U	0.45 ± 0.68 U	0.53 ± 0.382	0.64 ± 0.31 U	0.88 ± 0.64 U	0.73 ± 0.36 U	0.34 ± 0.51 U	0.64 ± 0.48 U	0.245 ± 0.235 U	2.15 ± 0.78	1.47 ± 0.67	0.961 ± 0.286	0.92 ± 0.68 U	1.18 ± 0.67	0.66 ± 0.64 U	0.629 ± 0.280	0.451 ± 0.288 U	0.51 ± 0.209	0.379 ± 0.275 U	0.111 ± 0.567 U	1.08 ± 0.553			
Sulfate	N	mg/L	400	126	116	109	120	107	100	99	94	83	68	62	65	65	66	54	50.9	53.9	86.7	65.6					
<b>CALC</b>																											
Residue 226/228	N	pcr/L	7.002	1.33 ± 0.8 U	0.02 ± 0.76 U	0.53 ± 0.71	0.79 ± 0.4 U	0.97 ± 0.77 U	0.9 ± 0.45 U	0.34 ± 0.59 U	0.77 ± 0.59 U	0.348 ± 0.287 U	2.65 ± 0.91	1.58 ± 0.75 U	1.31 ± 0.376	1.25 ± 0.8 U	1.27 ± 0.74 U	0.85 ± 0.71 U	0.852 ± 0.320	0.507 ± 0.398 U	0.811 ± 0.327	0.494 ± 0.305 U	0.174 ± 0.580 U	1.09 ± 0.574			
<b>FIELD PARAM</b>																											
Turbidity, Field	N	NTU	17.96									19.1	18.3	26.5	38.7	21.6	22.8	26.5	29.8	91.7	30.2	19.4	15.7	61.5			
<b>GEN CHEM</b>																											
Dissolved Solids, Total	N	mg/L	1200	12	11	11	11	11	11	10	12	10	11	10	12	9	11	9.21	11.6	9.98	10.1	10.4	11.1				
pH, Lab	N	pH units	9	7.31	7.33	7.31	7.42	7.32	7.33	7.25	7.2	7.41	7.51	7.34	7.21	7.39 H	7.56 H	7.31 H	8.17 TR	7.5 TR	7.65 TR	7.46 TR	7.83 TR				
<b>METALS</b>																											
Antimony	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U F1	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U			
Arsenic	D	mg/L	0.01	0.0025	0.0018	0.0016	0.0018	0.0016	0.0014	0.0016	0.0015	0.0015	0.0015	0.0017	0.0017	0.0016	0.0016	0.0016	0.002	0.0028	0.002 U	0.002 U	0.002 U	0.002 U			
Barium	D	mg/L	2	0.145	0.139	0.123	0.13	0.128	0.141	0.155	0.144	0.143	0.165	0.133	0.138	0.138	0.138	0.138	0.138	0.138	0.138	0.138	0.138	0.138			
Beryllium	D	mg/L	0.004									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Bismuth	D	mg/L	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Boron	D	mg/L	2	2.37	2.16	2.12	2.21	2.03	1.7	1.33	1.18	1.41	0.875	0.793	0.808	0.591	0.645	0.645	0.556 F1	1.85	1.1	0.71	1.16				
Cadmium	D	mg/L	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U F1	0.001 U	0.001 U	0.001 U	0.001 U			
Calcium	D	mg/L	103.2	101 S	105	89.4	97.5	107	107	113	113	97.8	108 S	102	100	97.5 R	87.9	174	94.1	107	101	110	105				
Chromium	D	mg/L	0.1	0.0041	0.0025	0.0017	0.001 U	0.0027	0.0037	0.001 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Cobalt	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Copper	D	mg/L	0.006	0.0013	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0006 U	0.0025	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Iron	D	mg/L	NS																0.1 U	0.1 U	0.02 U	0.02 U	0.02 U	0.02 U			
Lead	D	mg/L	0.0075	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Lithium	D	mg/L	0.04	0.0404	0.0403	0.0412	0.0406	0.0424	0.0416	0.0411	0.0397	0.036	0.0322	0.0293	0.0293	0.0314	0.0299	0.0298	0.029	0.0277	0.0284	0.0293	0.0269				
Manganese	D	mg/L	NS																0.171	0.21	0.002 U	0.002 U	0.002 U	0.002 U			
Mercury	D	mg/L	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	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U F1	0.0002 U	0.0002 U	0.0002 U	0.0002 U			
Molybdenum	D	mg/L	0.1	0.0891	0.084	0.0793	0.0812	0.0748	0.0714	0.0592	0.057	0.0653	0.0445	0.0227	0.0383	0.0367	0.0461	0.037	0.0511 F1	0.0543	0.0502	0.044	0.0499				
Nickel	D	mg/L	NS									0.0019	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017	0.0017			
Selenium	D	mg/L	0.05	0.0158	0.015	0.0149	0.0161	0.014	0.012	0.0101	0.0102	0.0132	0.0111	0.0085	0.0099	0.0165	0.0096	0.0139	0.0221 F1	0.0176	0.0172	0.0111	0.0152				
Thallium	D	mg/L	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	0.001 U	0.001 U	0.001 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			
Thallium	T	mg/L	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	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U			

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**Grand Tower Energy Center (GTEC)**  
**Grand Tower, US-IL**

Parameter/Analyte	Total or Dissolved	Units	35 IAC 845.600	Sampled prior to closure of CCR Impoundment										Post-Closure Sampling					
				APW-5-20170907 APW-05 09/06/2017 N	APW-5-20170928 APW-05 09/28/2017 N	APW-5-20171019 APW-05 10/19/2017 N	APW-5-20171109 APW-05 11/09/2017 N	APW-5-20171129 APW-05 11/29/2017 N	APW-5-20171227 APW-05 12/27/2017 N	APW-5-20180118 APW-05 01/18/2018 N	APW-5-20180207 APW-05 02/07/2018 N	APW-05-WG-20220616 APW-05 06/16/2022 N	DUP-001-WG-20220616 APW-05 06/16/2022 FD	APW-05-WG-20220914 APW-05 09/14/2022 N	DUP-001-WG-20220914 APW-05 09/14/2022 FD	APW-05-WG-20221128 APW-05 11/28/2022 N	DUP-01-WG-20221128 APW-05 11/28/2022 FD	APW-05-WG-20230201 APW-05 02/01/2023 N	DUP-01-WG-20230201 APW-05 02/01/2023 FD
<b>UNSPECIFIED</b>																			
Fluoride	N	mg/L	4	0.34	0.34	0.32	0.32	0.32	0.33	0.36	0.32	0.35	0.33	0.33	0.31	0.37	0.38	0.33	0.33
Radium-226	N	pCi/L	NS	0.37 ± 0.14 U	0.19 ± 0.1 U	0.133 ± 0.370	0.48 ± 0.15 U		0.35 ± 0.12 U	0.13 ± 0.1 U	0.26 ± 0.13 U	0.649 ± 0.316	0.259 ± 0.27 J	0.17 ± 0.08 U	0.11 ± 0.07 U	0.11 ± 0.11 U	0.17 ± 0.08 U	0.209 ± 0.245 J	0.205 ± 0.241 J
Radium-228	N	pCi/L	NS	1.07 ± 0.8	0.89 ± 0.55 J	0.661 ± 0.418	1.17 ± 0.33		0.49 ± 0.42 U	1.04 ± 0.56	0.35 ± 0.4 U	1.1 ± 0.282	0.715 ± 0.31	0.82 ± 0.88 J	0.27 ± 0.55 U	0.49 ± 0.49 U	1.24 ± 0.71	0.399 ± 0.422 J	0.249 ± 0.228 J
Sulfate	N	mg/L	400	407	460	399	413	381	394	439	378	224	239	379	403	324	338	325	305
<b>CALC</b>																			
Radium-226/228	N	pCi/L	7.002	1.44 ± 0.94 U	1.08 ± 0.65 U	0.794 ± 0.78	1.65 ± 0.48 U		0.84 ± 0.54 U	1.17 ± 0.66 U	0.61 ± 0.53 U	1.75 ± 0.424	0.973 ± 0.411	0.99 ± 0.96 U	0.38 ± 0.62 U	0.6 ± 0.6 U	1.41 ± 0.79 U	0.608 ± 0.488 J	0.454 ± 0.332 J
<b>FIELD PARAM</b>																			
Turbidity, Field	N	NTU	17.96									51.8		9.19		4.65		8.21	
<b>GEN CHEM</b>																			
Chloride	N	mg/L	200	15	15	15	14	16	16	16	19	19	15	15	19	19	18	18	18
Dissolved Solids, Total	N	mg/L	1200	842	832	804	826	790	792	552	804	650	690	750 H	774 H	714	728 H	696	670
pH, Lab	N	pH units	9	7.37	7.3	7.26	7.3	7.26	7.31	7.23	7.26	7.18	7.35	7.49	7.55	7.24	7.27	7.31	7.33
<b>METALS</b>																			
Antimony	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Antimony	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Arsenic	D	mg/L	0.01									0.002	0.0021	0.001	0.001	0.001	0.0019	0.0026	0.0018
Arsenic	T	mg/L	0.01	0.0031	0.0026	0.0015	0.0016	0.0016	0.0019	0.0021	0.0019	0.0048	0.0041	0.0025	0.0023	0.0022	0.0024	0.0024	0.0025
Barium	D	mg/L	2									0.133	0.132	0.13	0.128	0.122 B	0.13 B	0.175	0.135
Barium	T	mg/L	2	0.226	0.233	0.183	0.216	0.193	0.214	0.214	0.195	0.187	0.174	0.154	0.152	0.14	0.136	0.145	0.148
Beryllium	D	mg/L	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
Beryllium	T	mg/L	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	0.002 U	0.002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Boron	D	mg/L	2									7.63	7.7	7.42	7.09	6.12	7.03 S	8.68 S	6.76
Boron	T	mg/L	2	9.3	10.3	8.89	9.98	9.1	9.83	9.25	8.73	7.67	8.24 S	7.76	7.62	7.48	7.97	7.35	7.59
Cadmium	D	mg/L	0.005									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	T	mg/L	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Calcium	D	mg/L	103.2									139	141	119	131	87.4	110 S	106 S	111
Calcium	T	mg/L	103.2	136	142	119	131	123	125	121	124	127	129 S	127	137	117	118	112	114
Chromium	D	mg/L	0.1									0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Chromium	T	mg/L	0.1	0.0137	0.001 U	0.0041	0.001 U	0.001 U	0.0084	0.0033	0.001 U	0.0016 J	0.003 U	0.0015 U	0.0015 U	0.0016	0.0015 U	0.0015 U	0.0015 U
Cobalt	D	mg/L	0.006									0.0006 J	0.0005 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cobalt	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0013 J	0.0011 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iron	T	mg/L	NS									2.77	1.89						
Lead	D	mg/L	0.0075									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lead	T	mg/L	0.0075	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Lithium	D	mg/L	0.04									0.0282	0.029	0.0381	0.0373	0.0338	0.0365	0.045	0.0375
Lithium	T	mg/L	0.04	0.0363	0.0443	0.0393	0.0405	0.0415	0.0433	0.0404	0.0397	0.0331	0.0363	0.0408	0.0397	0.0373	0.0371	0.0399	0.0402
Manganese	T	mg/L	NS									0.9	0.904						
Mercury	D	mg/L	0.002											0.0002 U	0.0002 U				
Mercury	T	mg/L	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	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Molybdenum	D	mg/L	0.1									0.172	0.17	0.213	0.206	0.211 S	0.187	0.199	0.199
Molybdenum	T	mg/L	0.1	0.172	0.195	0.201	0.168	0.193	0.246	0.244	0.249	0.203	0.195	0.235	0.224	0.223	0.226	0.217	0.212
Nickel	D	mg/L	NS									0.0036	0.0035			0.0011	0.0024		
Nickel	T	mg/L	NS	0.0074	0.0012	0.0023	0.001 U	0.001 U	0.0043	0.0021	0.001 U	0.0037	0.0039			0.002	0.0029		
Selenium	D	mg/L	0.05									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Selenium	T	mg/L	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium	D	mg/L	0.002									0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Thallium	T	mg/L	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	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 pCi/L = picocuries per liter  
 NTU = nephelometric turbidity units  
 H = Holding times exceeded  
 J = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 I3 = The associated batch QC was outside the established quality control range for precision  
 J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low  
 S = Spike Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 T8 = Sample received past/too close to holding time expiration

1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit  
 3 Eight episodes of groundwater sampling were conducted  
 Highlighted values exceed action level  
 NS = No standard



**Table 1**  
**Groundwater Summary Table**  
**Grand Tower Energy Center (GTCC)**

Grand Tower, US-11			Sampled prior to closure of CCR Impoundment													Post-Closure Sampling									
Parameter/Analyte	Total or Dissolved	Units	Sample ID	APW-60-20170907	APW-60-20170927	APW-60-20171019	APW-60-20171109	APW-60-20171128	APW-60-20171227	APW-60-20180118	APW-60-20180208	APW-60-20200913	APW-60-20221128	APW-60-20230201	APW-60-20230627	APW-60-20230920	APW-60-20231128	APW-60-20240110	APW-60-20240501	APW-60-20240905	APW-60-20241016	APW-60-20250115	APW-60-20250624		
			Location ID	09/06/2017	09/28/2017	10/19/2017	11/09/2017	11/28/2017	12/27/2017	01/18/2018	02/08/2018	09/13/2022	11/28/2022	02/01/2023	06/27/2023	09/20/2023	11/28/2023	01/10/2024	05/01/2024	09/05/2024	10/16/2024	01/15/2025	06/24/2025		
35 IAC	845.600																								
<b>UNSPECIFIED</b>																									
Fluoride	N	mg/L	4	0.22	0.23	0.21	0.22	0.21	0.22	0.23	0.21	0.2	0.24	0.21	0.2	0.24	0.22	0.24	0.212	0.15 U	0.205	0.15 U	0.17	0.216	
Barium-206	N	mg/L	NS	0.62 ± 0.17 U	0.37 ± 0.11 U	1.22 ± 0.746	0.38 ± 0.15 U	0.38 ± 0.18 U	0.3 ± 0.12 U	0.62 ± 0.08 U	0.2 ± 0.13 U	0.31 ± 0.1 U	0.62 ± 0.15 U	0.55 ± 0.275	0.3 ± 0.12 U	0.18 ± 0.09 U	0.11 ± 0.05 U	0.382 ± 0.361	0.18 ± 0.235	0.447 ± 0.249	0.258 ± 0.255	0.222 ± 0.126	0.324 ± 0.234	0.386 ± 0.483	
Barium-228	N	mg/L	NS	1.07 ± 0.65	0.61 ± 0.33 U	0.549 ± 0.377	0.86 ± 0.37 J	1.4 ± 0.71	0.78 ± 0.48 J	0.74 ± 0.57 J	0.24 ± 0.34 U	1.46 ± 0.71	0.28 ± 0.43 U	1.07 ± 0.45 J	0.74 ± 0.54 J	2.62 ± 0.78	0.78 ± 0.6 J	1.24 ± 0.276	1.1 ± 0.285	1.63 ± 0.372	0.647 ± 0.345	2.46 ± 0.606	2.46 ± 0.606	2.46 ± 0.606	
Sulfate	N	mg/L	400	215	228	206	222	230	236	189	272	254	269	270	218	184	180	184	242	214	266	211	211	211	
<b>CALC</b>																									
Barium-226/228	N	cpd/L	17,002	1.69 ± 0.82 U	0.98 ± 0.44 U	1.77 ± 1.12	1.12 ± 0.51 U	1.78 ± 0.89 U	0.77 ± 0.65 U	0.44 ± 0.47 U	1.77 ± 0.81 U	0.9 ± 0.58 U	1.38 ± 0.528	1.04 ± 0.66 U	2.8 ± 0.85	0.87 ± 0.65 U	1.82 ± 0.454	1.52 ± 0.369	2.27 ± 0.448	0.9 ± 0.429	2.68 ± 0.631	0.96 ± 0.555			
<b>FIELD PARAM</b>																									
Turbidity, Field	N	NTU	17.96								18.5	18.4	16.9	181	65.5	3.02	18.2	35.8	21.8	8.39	11	11	14.81		
<b>GEN CHEM</b>																									
Chloride	N	mg/L	200	17	17	16	16	16	16	17	17	14	17	16	15	16	22	21.2	21.5	15	14.7	14.7	17.5		
Dissolved Solids, Total	N	mg/L	1200	568	569	563	564	568	576.8	482	584	670.4	580	592	775	565	569	576	549	624	569	549	584		
pH, Lab	N	pH units	9	7.23	7.25	7.23	7.23	7.2	7.2	7.2	7.2	7.2	7.2	7.29	7.39 H	7.36 H	7.73 TR	7.3 H	7.46 TR	7.42 TR	7.54 TR	7.72 TR	7.72 TR		
<b>METALS</b>																									
Antimony	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U	0.004 U F1	0.004 U	0.004 U	0.004 U	0.004 U	
Arsenic	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00451	0.00585 F1	0.00479	0.00485	0.00414	0.0052	
Barium	D	mg/L	2	0.068	0.101	0.075	0.0074	0.009	0.0095	0.0106	0.0096	0.0104	0.011	0.0107	0.0115	0.0109	0.0135	0.0102	0.0108	0.0103	0.0103	0.0098	0.0098	0.0098	
Bismuth	D	mg/L	2									0.129	0.118.8	0.152	0.13	0.121	0.185	0.106	0.115 E1	0.121	0.113	0.111	0.107		
Barium	T	mg/L	2	0.173	0.172	0.142	0.153	0.155	0.163	0.166	0.148	0.143	0.142	0.134	0.145	0.128	0.151	0.115	0.119	0.129	0.119	0.124	0.123		
Beryllium	D	mg/L	0.004									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U		
Boron	T	mg/L	2	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	
Boron	D	mg/L	2	3.72	3.87	3.55	3.58	3.9	3.84	3.3	3.09	5.32	4.14	4.39	5.01	3.77	4.67	2.98 F1	4.36	4.03	3.33	3.92	3.92		
Cadmium	D	mg/L	0.005									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U F1	0.001 U	0.001 U	0.001 U	0.001 U		
Cadmium	T	mg/L	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U	
Calcium	D	mg/L	103.2	94.9	110	96.7	100	110	102	105.5	105	118	105	109	118	114	114	114 F1	114	114	114	114	114		
Calcium	T	mg/L	103.2	94.9	110	96.7	100	110	102	105.5	105	118	105	109	118	114	114	114	114	114	114	114	114		
Chromium	D	mg/L	0.1									0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U		
Chromium	T	mg/L	0.1	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U		
Cobalt	D	mg/L	0.006									0.0013	0.0012	0.001	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U		
Cobalt	T	mg/L	0.006	0.0012	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U		
Copper	D	mg/L	NS																						
Copper	T	mg/L	NS																						
Lead	D	mg/L	0.0075									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U		
Lead	T	mg/L	0.0075	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U		
Lithium	D	mg/L	0.04									0.0179	0.0155	0.0194	0.016	0.0197	0.0161	0.0159 F1	0.0156	0.0173	0.0156	0.0152	0.0152		
Lithium	T	mg/L	0.04	0.016	0.0176	0.0161	0.0163	0.0178	0.0181	0.0165	0.0162	0.0185	0.0175	0.0172	0.0184	0.0169	0.0199	0.0173	0.0171	0.0163	0.0168	0.0167	0.0148		
Manganese	D	mg/L	NS																						
Manganese	T	mg/L	NS																						
Mercury	D	mg/L	0.002									0.0002 U													
Mercury	T	mg/L	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	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U F1	0.0002 U	0.0002 U	0.0002 U		
Molybdenum	D	mg/L	0.1									0.0669	0.0796	0.0583	0.0617	0.0559	0.0647	0.0748 F1	0.0542	0.0647	0.0558	0.0542	0.0542		
Molybdenum	T	mg/L	0.1	0.0646	0.0606	0.0582	0.0589	0.06	0.0584	0.0645	0.0663	0.0719	0.0696	0.0683	0.0602	0.0672	0.0605	0.0722	0.0628	0.0527	0.0527	0.0527	0.0609		
Nickel	D	mg/L	NS																						
Nickel	T	mg/L	NS	0.0032	0.0028	0.0018	0.002	0.0017	0.0023	0.0025	0.002	0.0023	0.0023	0.002	0.002	0.002	0.002	0.002	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U		
Selenium	D	mg/L	0.05									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U		
Selenium	T	mg/L	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U		
Thallium	D	mg/L	0.002									0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U F1	0.002 U	0.002 U	0.002 U	0.002 U		
Thallium	T	mg/L	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	0.002 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 F1	0.002 U	0.002 U	0.002 U		

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter  
 NTU = nephelometric turbidity units  
 H = Holding times exceeded  
 J = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 J3 = The associated batch OC was outside the established quality control range for precision  
 I6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low  
 S = Spike Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 TB = Sample received past/too close to holding time expiration  
 1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit  
 3 Eight episodes of groundwater sampling were conducted  
 Highlighted values exceed action level  
 NS = No standard

**Table 1  
Groundwater Summary Table  
Grand Tower Energy Center (GTEC)  
Grand Tower, US-IL**

Parameter/Analyte	Total or Dissolve d	Units	35 IAC R45.600	Sampled prior to closure of CCR Impoundment																Post-Closure Sampling					
				APW-65-20170907 APW-065 09/06/2017 N	APW-65-20170928 APW-065 09/28/2017 N	APW-65-20171019 APW-065 10/19/2017 N	APW-65-20171109 APW-065 11/09/2017 N	APW-65-20171128 APW-065 11/28/2017 N	APW-65-20171227 APW-065 12/27/2017 N	APW-65-20180118 APW-065 01/18/2018 N	APW-65-20180208 APW-065 02/08/2018 N	APW-65-WG-20220616 APW-065 06/16/2022 N	APW-065-WG-20220913 APW-065 09/13/2022 N	APW-065-WG-20221128 APW-065 11/28/2022 N	APW-065-WG-20230201 APW-065 02/01/2023 N	APW-065-WG-20230627 APW-065 06/27/2023 N	APW-065-WG-20230920 APW-065 09/20/2023 N	APW-065-WG-20231128 APW-065 11/28/2023 N	APW-065-WG-20240110 APW-065 01/10/2024 N	APW-065-WG-20240501 APW-065 05/01/2024 N	APW-065-WG-20240905 APW-065 09/05/2024 N	APW-065-WG-20241016 APW-065 10/16/2024 N	APW-065-WG-20250115 APW-065 01/15/2025 N	APW-065-WG-20250624 APW-065 06/24/2025 N	
<b>UNSPECIFIED</b>																									
Fluoride	N	mg/L	4	0.41	0.26	0.25	0.25	0.25	0.27	0.24	0.28	0.32	0.29	0.26	0.3	0.33	0.277	0.15 U	0.242	0.15 U	0.239	0.291			
Radium-226	N	pc/L	NS	0.35 ± 0.14 U	0.09 ± 0.08 U	0.317 ± 0.331	0.27 ± 0.11 U	0.18 ± 0.13 U	0.11 ± 0.09 U	0.09 ± 0.09 U	0.15 ± 0.11 U	0.269 ± 0.182	0.2 ± 0.08 U	0.12 ± 0.09 U	0.0283 ± 0.232 U	0.11 ± 0.08 U	0.32 ± 0.11 U	0.09 ± 0.05 U	0.702 ± 0.335	0.31 ± 0.217	0.0841 ± 0.233 U	0.252 ± 0.188	0.291 ± 0.247 U		
Radium-228	N	pc/L	NS	0.56 ± 0.77 U	1.06 ± 0.53	0.481 ± 0.316	0.9 ± 0.4 U	0.92 ± 0.6 U	0.44 ± 0.44 U	0.71 ± 0.53 U	0.88 ± 0.38 U	0.228 ± 0.248 U	2.73 ± 0.9	0.41 ± 0.5 U	1.44 ± 0.518	0.03 ± 0.59 U	0.41 ± 0.38 U	0.29 ± 0.51 U	0.688 ± 0.243	0.951 ± 0.345	0.667 ± 0.386 U	0.895 ± 0.221	2.73 ± 0.613	1.01 ± 0.805 U	
Cyanide	N	mg/L	400	127	177	167	151	189	201	233	220	242	247	208	221	247	240	211	152	148	148	246	116		
<b>FIELD PARAM</b>																									
Radium-226/228	N	pc/L	7,002	0.92 ± 0.91 U	1.15 ± 0.61 U	0.798 ± 0.647	1.25 ± 0.52 U	1.1 ± 0.73 U	0.55 ± 0.53 U	0.8 ± 0.62 U	1.04 ± 0.49 U	0.497 ± 0.308	2.93 ± 0.98	0.6 ± 0.59 U	1.47 ± 0.568	0.11 ± 0.67 U	0.73 ± 0.49 U	0.38 ± 0.56 U	1.93 ± 0.477	1.66 ± 0.481	0.977 ± 0.443	0.979 ± 0.321	2.49 ± 0.641	1.3 ± 0.842 U	
Transv. Field	N	NTU	17.96									50.5	15.1	5.56	6.67	9.96	8.99	1.26	3.32	5.06	5.72	8.11	22.4		
<b>GEN CHEM</b>																									
Chloride	N	mg/L	200	31	28	27	27	26	27	26	25	24	25	24	24	23	20	22	21.2	21.6	21.1	19.4	21	27.2	
Dissolved Solids, Total	N	mg/L	1200	500	546	574	528	566	588	598	666	600	638	605	638	615	565	644	628.0	589	589	673	538		
Total Solids	N	mg/L	2000	716	706	718	723	709	713	708	702	724	738	704	712	705	721	712	735	728	728	738	758		
<b>METALS</b>																									
Antimony	D	mg/L	0.006																						
Antimony	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U	0.004 U F1	0.004 U	0.004 U	0.004 U		
Arsenic	D	mg/L	0.01																						
Arsenic	T	mg/L	0.01	0.0017	0.0016	0.0018	0.002	0.0013	0.0012	0.0011	0.0011	0.0009 U	0.0012	0.0011	0.0011	0.0011	0.0012	0.0016	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Barium	D	mg/L	2																						
Barium	T	mg/L	2	0.222	0.237	0.205	0.226	0.214	0.213	0.224	0.205	0.23	0.249	0.224	0.206	0.224	0.204	0.244	0.155	0.199	0.18	0.162	0.12		
Beryllium	D	mg/L	0.004																						
Beryllium	T	mg/L	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Boron	D	mg/L	2																						
Boron	T	mg/L	2	4.65	5.93	5.83	5.64 S	5.8	6.93 S	7.42	6.66	4.27	6.61	6.31	6.84 S	5.84	5.29	4.94	4.44	4.68	4.58	5.34	3.66		
Cadmium	D	mg/L	0.005																						
Cadmium	T	mg/L	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		
Calcium	D	mg/L	103.2																						
Calcium	T	mg/L	103.2	101	97.2	87.5	96.8 S	99.5	98.1	98.7	97.4	124	115	103	97.1 S	109	100	100	100	100	100	100	100		
Chromium	D	mg/L	0.1																						
Chromium	T	mg/L	0.1	0.0022	0.0123	0.0028	0.001 U	0.001 U	0.0018	0.0012	0.001 U	0.0028	0.0015 U	0.0022	0.0015 U	0.0019	0.0027	0.0015 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Cobalt	D	mg/L	0.006																						
Cobalt	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Copper	D	mg/L	NS																						
Copper	T	mg/L	NS																						
Lead	D	mg/L	0.0075																						
Lead	T	mg/L	0.0075	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Lithium	D	mg/L	0.04																						
Lithium	T	mg/L	0.04	0.0135	0.0411	0.04	0.0415	0.042	0.0458	0.0451	0.0417	0.0363	0.041	0.0384	0.0386	0.0406	0.0411	0.0487	0.0468	0.0381	0.0318	0.0303	0.0261		
Manganese	D	mg/L	NS																						
Manganese	T	mg/L	NS																						
Mercury	D	mg/L	0.002																						
Mercury	T	mg/L	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	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	D	mg/L	0.1																						
Molybdenum	T	mg/L	0.1	0.249	0.287	0.272	0.243	0.274	0.314	0.324	0.323	0.229	0.235	0.24	0.244	0.24	0.232	0.231	0.209	0.26	0.24	0.19	0.147		
Nickel	D	mg/L	NS																						
Nickel	T	mg/L	NS	0.0021	0.009	0.0021	0.0012	0.001 U	0.0031	0.0016	0.0012	0.0027	0.001 U	0.0023	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Selenium	D	mg/L	0.05																						
Selenium	T	mg/L	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Thallium	D	mg/L	0.002																						
Thallium	T	mg/L	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	0.002 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		

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 pc/L = picocuries per liter  
 NTU = nephelometric turbidity units  
 H = Holding times exceeded  
 U = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 13 = The associated batch OC was outside the established quality control range for precision  
 36 = The sample matrix interfered with the ability to make an accurate determination; spike value is low  
 S = Spike Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 TR = Sample received past too close to holding time expiration  
 1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit  
 3 Eight episodes of groundwater sampling were conducted  
 Highlighted values exceed action level  
 NS = No standard

**Table 1**  
**Groundwater Summary Table**  
**Grand Tower Energy Center (GTCC)**  
**Grand Tower, US-IL**

Parameter/Analyte	Total or Dissolved	Units	35 IAC 845,600	Sampled prior to closure of CCR Impoundment												Post-Closure Sampling							
				APW-7-20170907	APW-7-20170928	APW-7-20171019	APW-7-20171109	APW-7-20171128	APW-7-20171227	APW-7-20180118	APW-7-20180208	APW-7-20220616	APW-7-20220914	APW-7-20221130	APW-7-20230130	APW-7-20230626	APW-7-WG-20230919	APW-7-WG-20231128	APW-7-WG-20240111	APW-7-WG-20240430	APW-7-WG-20240904	APW-7-WG-20241016	APW-7-WG-20250625
				09/07/2017	09/28/2017	10/19/2017	11/09/2017	11/28/2017	12/27/2017	01/18/2018	02/08/2018	06/16/2022	09/14/2022	11/30/2022	01/30/2023	06/26/2023	09/19/2023	11/28/2023	01/11/2024	04/30/2024	09/04/2024	10/16/2024	06/25/2025
<b>UNSPECIFIED</b>																							
Fluoride	N	mg/L	4	0.35	0.21	0.19	0.2	0.2	0.19	0.2	0.18	0.18	0.17	0.18	0.19	0.17	0.18	0.172	0.15 U	0.199 P1	0.15 U	0.168	
Radium-226	N	pCi/L	NS	0.47 ± 0.15 U	0 ± 0.06 U	0.505 ± 0.396	0.11 ± 0.08 U	0.16 ± 0.14 U	0.25 ± 0.1 U	0.14 ± 0.09 U	0.24 ± 0.14 U	0.333 ± 0.208	0.18 ± 0.09 U	0.2 ± 0.11 U	0.337 ± 0.265	-0.01 ± 0.06 U	0.11 ± 0.07 U	0.16 ± 0.06 U	0.775 ± 0.378	0.617 ± 0.356	0.333 ± 0.174	0.232 ± 0.212 J	0.127 ± 0.171 J
Radium-228	N	pCi/L	NS	-0.42 ± 0.79 U	0.76 ± 0.61 J	0.785 ± 0.412	1.13 ± 0.39	0.61 ± 0.51 U	0.14 ± 0.35 U	1.19 ± 0.55	0.53 ± 0.4 U	0.766 ± 0.234	1.45 ± 0.72	1.13 ± 0.66	1.77 ± 0.352	1.11 ± 0.74	0.99 ± 0.62 JODR	0.45 ± 0.57 U	1.93 ± 0.264	0.803 ± 0.291	0.736 ± 0.361	1.77 ± 0.347	0.8 ± 0.610 J
Sulfate	N	mg/L	1400	66	59	52	50	61	63	67	64	72	78	48	48	54	40	68.8	56.3	34.7 J6	46.3	39.4	
<b>CALC</b>																							
Radium-226/228	N	pCi/L	7.002	0.47 ± 0.94 U	0.76 ± 0.67 U	1.29 ± 0.808	1.24 ± 0.47 U	0.77 ± 0.65 U	0.39 ± 0.45 U	1.33 ± 0.64 U	0.77 ± 0.54 U	1.1 ± 0.313	1.63 ± 0.81 U	1.33 ± 0.77 U	2.1 ± 0.441	1.11 ± 0.8 U	1.1 ± 0.69 U	0.61 ± 0.63 U	2.7 ± 0.461	1.42 ± 0.460	0.933 ± 0.401	2.01 ± 0.407	0.927 ± 0.634 J
<b>FIELD PARAM</b>																							
Turbidity, Field	N	NTU	17.96									66.2	34.8	10.5	79.2	14.8	42.9	21	4.36	3.34	5.27	6.88	5.5
<b>GEN CHEM</b>																							
Chloride	N	mg/L	200	18	15	14	15	16	15	15	15	11	17	17	14	10	9	11	11.5	9.63	11.5	9.63	9.38
Dissolved Solids, Total	N	mg/L	1200	762	786	624	730	742	726	720	740	790	815 H	800	824	665	740	720	724	727	673	741	683
pH, Lab	N	pH units	9	6.84	6.84	6.86	6.87	6.83	6.96	6.97	6.88	6.88	7.02	6.78	7.23	6.79 H	6.94 H	6.86 H	7.31 T8	7.02 T8	7.03 T8	6.93 T8	7.22 T8
<b>METALS</b>																							
Antimony	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U	0.004 U	0.004 U	0.004 U
Antimony	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.004 U	0.004 U	0.004 U	0.004 U
Arsenic	D	mg/L	0.01									0.0011	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0012	0.0013	0.0016	0.002 U	0.002 U	0.002 U
Arsenic	T	mg/L	0.01	0.0014	0.0012	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0023	0.0016	0.0011	0.0014	0.0018	0.0022	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Barium	D	mg/L	2									0.334	0.255	0.358 B	0.411	0.303	0.336	0.445	0.256	0.28 F1	0.252	0.265	0.255
Barium	T	mg/L	2	0.465	0.448	0.394	0.401	0.387	0.374	0.38	0.359	0.374	0.381	0.371	0.312	0.303	0.322	0.349	0.309	0.351	0.302	0.31	
Beryllium	D	mg/L	0.004									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Beryllium	T	mg/L	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Boron	D	mg/L	2									0.148	0.193	0.199	0.208	0.192	0.243	0.208	0.243	0.505	0.225	0.217	
Boron	T	mg/L	2	0.235	0.308	0.302	0.3	0.278	0.342	0.298	0.318	0.168	0.208	0.217	0.246	0.237	0.181	0.274	0.2 U	0.526	0.228	0.204	
Cadmium	D	mg/L	0.005									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	T	mg/L	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Calcium	D	mg/L	103.2									222	199	204	199	180 S	196	162	203	216 F1	185	171	195
Calcium	T	mg/L	103.2	192	204	171	187	196	193	191	185	238	210	209	183.85	161	177	208	213	192	219	199	
Chromium	D	mg/L	0.1									0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U	0.002 U	0.002 U	
Chromium	T	mg/L	0.1	0.0017	0.0063	0.0026	0.001 U	0.001 U	0.0029	0.001 U	0.001 U	0.0041	0.0021	0.0015 U	0.0034	0.0015 U	0.0057	0.0024	0.002 U	0.002 U	0.002 U	0.002 U	
Cobalt	D	mg/L	0.006									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Cobalt	T	mg/L	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Iron	D	mg/L	NS									0.001 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0013	0.002 U	0.002 U	0.002 U	
Iron	T	mg/L	NS									17.3								18.9			
Lead	D	mg/L	0.0075									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Lead	T	mg/L	0.0075	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0024	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Lithium	D	mg/L	0.04									0.0126	0.0148	0.0158	0.0191	0.0136	0.0184	0.0212	0.0167 F1	0.0151	0.0173	0.0138	
Lithium	T	mg/L	0.04	0.0147	0.0181	0.0172	0.0176	0.0185	0.0191	0.0181	0.0178	0.0143	0.0161	0.0166	0.0181	0.0153	0.0141	0.0231	0.019	0.0174	0.0152	0.0169	
Manganese	D	mg/L	NS																	11.6			
Manganese	T	mg/L	NS									1.11								1.19			
Mercury	D	mg/L	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	
Mercury	T	mg/L	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	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Molybdenum	D	mg/L	0.1									0.0026	0.0026	0.0021	0.0027	0.0025	0.0027	0.0025	0.004	0.005 U	0.005 U	0.005 U	
Molybdenum	T	mg/L	0.1	0.0046	0.0036	0.0033	0.0023	0.003	0.0044	0.0037	0.0036	0.0035	0.003	0.0029	0.0031	0.0028	0.0029	0.0042	0.005 U	0.005 U	0.005 U	0.005 U	
Nickel	D	mg/L	NS									0.0008 J								0.002 U			
Nickel	T	mg/L	NS	0.0014	0.0033	0.0013	0.001 U	0.001 U	0.0015	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	0.002 U	0.002 U	0.002 U	0.002 U	
Selenium	D	mg/L	0.05									0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Selenium	T	mg/L	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	
Thallium	D	mg/L	0.002									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	
Thallium	T	mg/L	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	0.002 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	

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 pCi/L = picocuries per liter  
 NTU = nephelometric turbidity units  
 H = Holding time exceeded  
 J = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 J3 = The associated batch OC was outside the established quality control range for precision  
 J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low  
 S = Spike Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 T8 = Sample received past/too close to holding time expiration  
 1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit  
 3 Eight episodes of groundwater sampling were conducted  
 Highlighted values exceed action level  
 NS = No standard





**Table 1**  
**Groundwater Summary Table**  
**Grand Tower Energy Center (GTCE)**  
**Grand Tower, US-IL**

Parameter/Analyte	Total or Dissolved	Units	Sampled prior to closure of CCR Impoundment												Post-Closure Sampling									
			APW-10D-20170807 APW-10D 09/07/2017 N	APW-10D-20170927 APW-10D 09/27/2017 N	APW-10D-20171019 APW-10D 10/19/2017 N	APW-10D-20171109 APW-10D 11/09/2017 N	APW-10D-20171128 APW-10D 11/28/2017 N	APW-10D-20180118 APW-10D 01/18/2018 N	APW-10D-20180209 APW-10D 02/09/2018 N	APW-10D-WG-20220615 APW-10D 06/15/2022 N	APW-10D-WG-20220916 APW-10D 09/16/2022 N	APW-10D-WG-20221129 APW-10D 11/29/2022 N	APW-10D-WG-20230202 APW-10D 02/02/2023 N	APW-10D-WG-20230626 APW-10D 06/26/2023 N	APW-10D-WG-20230919 APW-10D 09/19/2023 N	APW-10D-WG-20231127 APW-10D 11/27/2023 N	APW-10D-WG-20240111 APW-10D 01/11/2024 N	APW-10D-WG-20240430 APW-10D 04/30/2024 N	APW-10D-WG-20240905 APW-10D 09/05/2024 N	APW-10D-WG-20241015 APW-10D 10/15/2024 N	APW-10D-WG-20250116 APW-10D 01/16/2025 N	APW-10D-WG-20250625 APW-10D 06/25/2025 N		
<b>UNSPECIFIED</b>																								
Boride	N	mg/L	0.1	0.12	0.1	0.1 U	0.11	0.1	0.11	0.11	0.12	0.1	0.12	0.12	0.14	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U		
Barium-226	N	mCi/l	NS	0.34 ± 0.12 U	0.11 ± 0.11 U	0.121 ± 0.332	0.19 ± 0.12 U	0.16 ± 0.13 U	0.21 ± 0.11 U	0.08 ± 0.11 U	0.8 ± 0.07 U	0.22 ± 0.09 U	0.31 ± 0.11 U	0.186 ± 0.157	0.31 ± 0.12 U	0.21 ± 0.09 U	0.14 ± 0.06 U	0.134 ± 0.189 U	0.163 ± 0.151	0.108 ± 0.224 U	0.114 ± 0.141 U	0.155 ± 0.161 U		
Barium-232	N	mCi/l	NS	1.16 ± 0.42	1.72 ± 0.64	0.633 ± 0.366	0.98 ± 0.33 U	0.87 ± 0.55 U	0.74 ± 0.37 U	0.98 ± 0.6 U	0.89 ± 0.43 U	1.19 ± 0.71 U	0.56 ± 0.58 U	0.28 ± 0.43 U	1.39 ± 0.76	0.61 ± 0.49 U	1.36 ± 0.72	1.49 ± 0.351	0.886 ± 0.294	0.266 ± 0.253 U	0.282 ± 0.302 U	0.587 ± 0.657		
Sulfate	N	mg/l	400	18	64	43	42	44	44	44	43	43	43	43	31	36	35.5	35.3	32.1	32.9	34.5	33		
<b>CALC</b>																								
Barium-226/232	N	mCi/l	7.002	1.5 ± 0.64 U	1.72 ± 0.74 U	0.754 ± 0.703	1.12 ± 0.45 U	0.63 ± 0.68 U	0.52 ± 0.47 U	1.06 ± 0.7 U	0.50 ± 0.5 U	1.44 ± 0.374	0.78 ± 0.67 U	0.59 ± 0.54 U	1.03 ± 0.402	1.7 ± 0.88 U	0.82 ± 0.58 U	1.5 ± 0.83 U	1.53 ± 0.390	1.02 ± 0.355	0.163 ± 0.285 U	0.38 ± 0.408 U	0.721 ± 0.621	
<b>FIELD PARAM</b>																								
Turbidity, Field	N	NTU	17.96									46.9	21.9	36.4	45.3	176	169	196	4.76	198	5.56	45.3	169	59.9
Chloride	N	mg/L	200	24	17	17	15	17	16	14	16	14	14	13	14	10	10	10.9	25.9	15	15.3	16.2	16.2	
Dissolved Solids, Total	N	mg/L	1200	466	474	492	498	492	488	512	492	460	454	485	459	446	436	459	447	447	447	446	446	
ppt, lab	N	mg/ml	17.42	7.43	7.05	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	7.43	
<b>METALS</b>																								
Antimony	D	mg/l	0.006																					
Antimony	T	mg/l	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Arsenic	D	mg/l	0.01																					
Arsenic	T	mg/l	0.01	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Barium	D	mg/l	2																					
Barium	T	mg/l	2	0.432	0.304	0.363	0.325	0.294	0.295	0.301	0.352	0.342	0.343	0.348	0.355	0.348	0.336	0.346	0.360 F1	0.317	0.334	0.34	0.34	
Beryllium	D	mg/l	0.004																					
Beryllium	T	mg/l	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Boron	D	mg/l	2																					
Boron	T	mg/l	2	0.0999	0.101	0.0843	0.0713	0.0923	0.0906	0.118	0.0731	0.0885	0.0922	0.0874	0.0929	0.0704	0.0639	0.0823	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	
Cadmium	D	mg/l	0.005																					
Cadmium	T	mg/l	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Calcium	D	mg/L	103.2																					
Calcium	T	mg/L	103.2	118	136	120	121	125	122	108.5	124.5	103	122	113	114	116	119	121 F1	101	113	126	129	129	
Chromium	D	mg/l	0.1																					
Chromium	T	mg/l	0.1	0.0036	0.0028	0.0022	0.001 U	0.001 U	0.0042	0.001 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Cobalt	D	mg/l	0.006																					
Cobalt	T	mg/l	0.006	0.0039	0.0024	0.0025	0.0032	0.0017	0.0013	0.0026	0.0026	0.0034	0.0049	0.003	0.002	0.0031	0.0039	0.00261	0.00271	0.002 U	0.00242	0.00271	0.00285	
Copper	D	mg/l	NS																					
Copper	T	mg/l	NS																					
Lead	D	mg/l	0.025																					
Lead	T	mg/l	0.025	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U		
Lithium	D	mg/l	0.04																					
Lithium	T	mg/l	0.04	0.0147	0.0155	0.0146	0.0146	0.0153	0.0155	0.0142	0.014	0.018	0.0156	0.0126	0.0146	0.0148	0.0154	0.0142	0.0113	0.0147	0.0152	0.0144	0.0144	
Manganese	D	mg/l	NS																					
Manganese	T	mg/l	NS																					
Mercury	D	mg/l	0.002																					
Mercury	T	mg/l	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	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U		
Molybdenum	D	mg/l	0.1																					
Molybdenum	T	mg/l	0.1	0.0024	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		
Nickel	D	mg/l	NS																					
Nickel	T	mg/l	NS	0.005	0.0027	0.006	0.0057	0.005	0.0022	0.0053	0.007	0.0063	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006		
Selenium	D	mg/l	0.05																					
Selenium	T	mg/l	0.05	0.001 U	0.001 U	0.0012	0.0013	0.001 U	0.0014	0.0016	0.0016	0.001 U	0.0021	0.0013	0.0027	0.0016	0.003	0.00269	0.00264	0.002 U	0.002 U	0.002 U		
Thallium	D	mg/l	0.002																					
Thallium	T	mg/l	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	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U		

Notes:  
 Empty cells = not analyzed  
 N = Normal Environmental Sample  
 FD = Field Duplicate Sample  
 NA = not applicable  
 T = total  
 D = dissolved  
 mg/L = milligrams per liter  
 mCi/L = microcuries per liter  
 NTU = nephelometric turbidity units  
 H = Holding time exceeded  
 J = Analyte detected below quantitation limits  
 F1 = Sample filtration was performed in the laboratory  
 J3 = The associated batch QC was outside the established quality control range for precision  
 36 = The sample matrix interfered with the ability to make an accurate determination; spike value is low  
 S = Spike Recovery outside recovery limits  
 R = RPD outside accepted recovery limits  
 U = Not Detected at the Reporting Limit  
 TB = Sample received past/too close to holding time expiration  
 1 Standard is from the Upper Tolerance Limit (UTL)  
 2 Standard value 6.22 is from the Lower Tolerance Limit  
 3 Eight episodes of groundwater sampling were conducted  
 Highlighted values exceed action level  
 NS = No standard

**Table 1**  
**Groundwater Summary Table**  
**Grand Tower Enerv Center (GTCC)**

Parameter/Analyte	Total or Dissolved	Units	Sampled prior to closure of CER Impoundment														Post-Closure Sampling							
			APW-105-20170907 APW-105 09/07/2017 N	APW-105-20170927 APW-105 09/27/2017 N	APW-105-20171019 APW-105 10/19/2017 N	APW-105-20171109 APW-105 11/09/2017 N	APW-105-20171128 APW-105 11/28/2017 N	APW-105-20180118 APW-105 01/18/2018 N	APW-105-20180209 APW-105 02/09/2018 N	APW-105-WG-20220615 APW-105 06/15/2022 N	APW-105-WG-20220915 APW-105 09/15/2022 N	APW-105-WG-20221129 APW-105 11/29/2022 N	APW-105-WG-20230202 APW-105 02/02/2023 N	APW-105-WG-20230626 APW-105 06/26/2023 N	APW-105-WG-20230919 APW-105 09/19/2023 N	APW-105-WG-20231127 APW-105 11/27/2023 N	APW-105-WG-20240111 APW-105 01/11/2024 N	APW-105-WG-20240430 APW-105 04/30/2024 N	APW-105-WG-20240905 APW-105 09/05/2024 N	APW-105-WG-20241015 APW-105 10/15/2024 N	APW-105-WG-20250116 APW-105 01/16/2025 N	APW-105-WG-20250625 APW-105 06/25/2025 N		
<b>UNSPECIFIED</b>																								
Barium	N	mg/L	4	0.19	0.21	0.16	0.16	0.17	0.17	0.16	0.17	0.15	0.17	0.15	0.16	0.18	0.15 U	0.15 U	0.251	0.15 U	0.199	0.228		
Barium-226	N	mCi/l	NS	0.4 ± 0.14 U	0.19 ± 0.11 U	0.224 ± 0.430	0.16 ± 0.11 U	0.18 ± 0.16 U	0.21 ± 0.11 U	0.29 ± 0.12 U	0.24 ± 0.13 U	0.228 ± 0.324	0.3 ± 0.1 U	0.31 ± 0.11 U	0.38 ± 0.195	0.32 ± 0.13 U	0.313 ± 0.289 U	0.347 ± 0.289 U	0.488 ± 0.252	0.236 ± 0.267 U	0.331 ± 0.211	0.446 ± 0.231		
Barium-228	N	mCi/l	NS	0.38 ± 0.47 U	0.98 ± 0.7 U	0.856 ± 0.391	0.71 ± 0.33 U	0.66 ± 0.42 U	0.56 ± 0.43 U	0.71 ± 0.28	0.61 ± 0.52 U	0.62 ± 0.268 U	2.52 ± 0.91	1.64 ± 0.68	0.167 ± 0.371 U	0.18 ± 0.47 U	4.24 ± 0.91	0.95 ± 0.66 U	2.1 ± 0.228	0.234 ± 0.289 U	0.143 ± 0.145 U	1.69 ± 0.451	0.575 ± 0.688 U	
Sulfate	N	mg/l	400	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U		
<b>CALC</b>	N	mCi/l	7.002	0.78 ± 0.61	1.12 ± 0.81 U	1.63 ± 0.80 U	0.82 ± 0.44 U	0.84 ± 0.73 U	0.79 ± 0.54 U	1.1 ± 0.9	1.12 ± 0.65 U	1.25 ± 0.40	2.80 ± 1.01	1.95 ± 0.79 U	1.24 ± 0.540	0.70 ± 0.6 U	4.83 ± 1.05	1.27 ± 0.25 U	12.42 ± 0.307	0.502 ± 0.416 U	0.498 ± 0.430 U	1.12 ± 0.441	2.02 ± 0.498	
<b>FIELD PARAM</b>																								
Turbidity, Field	N	NTU	17.96									61.5	34.3	52.6	37.3	57.2	63.6	13.1	3.78	17.1	9.12	20.4	7.11	60.1
Chloride	N	mg/L	200	10	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Dissolved Solids, Total	N	mg/L	1200	208	220	828	208	220	860.8	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
Field Job	N	mg/L	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
<b>METALS</b>																								
Antimony	D	mg/l	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Antimony	T	mg/l	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Arsenic	T	mg/l	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Arsenic	T	mg/l	0.01	0.186	0.18	0.209	0.183	0.193	0.21	0.198	0.185	0.152	0.187	0.182	0.191	0.184	0.174	0.276	0.196	0.198	0.19	0.191	0.194	
Barium	D	mg/l	2	0.613	0.638	0.583	0.668	0.565	0.508	0.703	0.585	0.433	0.525	0.432	0.506	0.567	0.211	0.288	0.330.F1	0.298	0.305	0.316	0.322	
Barium	T	mg/l	2	0.613	0.638	0.583	0.668	0.565	0.508	0.703	0.585	0.433	0.525	0.432	0.506	0.567	0.211	0.288	0.330.F1	0.298	0.305	0.316	0.322	
Beryllium	D	mg/l	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Beryllium	T	mg/l	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Boron	D	mg/l	2	0.544	0.536	0.545	0.545	0.545	0.573	0.645	0.582	0.57	0.541	0.488	0.492	0.578	0.571	0.544.F1	0.544.F1	0.535	0.562	0.563	0.592	
Boron	T	mg/l	2	0.544	0.536	0.545	0.545	0.545	0.573	0.645	0.582	0.57	0.541	0.488	0.492	0.578	0.571	0.544.F1	0.544.F1	0.535	0.562	0.563	0.592	
Cadmium	D	mg/l	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Cadmium	T	mg/l	0.005	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Calcium	D	mg/L	103.2	126	124	125	152	150	145	140	140	141	152	145	154	145	152	152	160.F1	152	152	159	159	
Calcium	T	mg/L	103.2	126	124	125	152	150	145	140	140	141	152	145	154	145	152	152	160.F1	152	152	159	159	
Chromium	D	mg/l	0.1	0.001	0.001	0.001	0.0016	0.001 U	0.0016	0.001 U	0.001 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	
Chromium	T	mg/l	0.1	0.001	0.001	0.001	0.0016	0.001 U	0.0016	0.001 U	0.001 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	
Cobalt	D	mg/l	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Cobalt	T	mg/l	0.006	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Copper	D	mg/l	NS																					
Copper	T	mg/l	NS																					
Lead	D	mg/L	0.0275	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Lead	T	mg/L	0.0275	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Lithium	D	mg/L	0.04	0.0263	0.0272	0.0272	0.0289	0.0293	0.0308	0.0316	0.0297	0.0353	0.033	0.0307	0.0323	0.0291	0.0301	0.0328	0.0293	0.0272	0.0297	0.031	0.0278	
Lithium	T	mg/L	0.04	0.0263	0.0272	0.0272	0.0289	0.0293	0.0308	0.0316	0.0297	0.0353	0.033	0.0307	0.0323	0.0291	0.0301	0.0328	0.0293	0.0272	0.0297	0.031	0.0278	
Manganese	D	mg/L	NS																					
Manganese	T	mg/L	NS																					
Mercury	D	mg/l	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	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	
Mercury	T	mg/l	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	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	D	mg/l	0.1	0.0017	0.0016	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Molybdenum	T	mg/l	0.1	0.0017	0.0016	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Nickel	D	mg/l	NS																					
Nickel	T	mg/l	NS																					
Selenium	D	mg/l	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Selenium	T	mg/l	0.05	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Thallium	D	mg/l	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	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	
Thallium	T	mg/l	0.002	0																				

APPENDIX A FOURTH QUARTER 2024 CCR  
IMPOUNDMENT INSPECTION REPORT



**Grand Tower Energy Center  
Closed CCR Impoundment  
Quarterly Inspection Form**

Date: 6/26/2025  
Time: 11:15 – 12:15  
Name: Emma Portell  
(Inspector)

**Weather:**

Temperature:

90 deg. F

- Sunny
- Cloudy
- Raining
- Other

\_\_\_\_\_

**Observations:**

- Erosion / Gullies
- Cracking / Sloughing
- Ponding / Damp Areas
- No Problems Identified
- Woody Vegetation Growth
- Other

\_\_\_\_\_

\_\_\_\_\_

**Conditions Limiting Visibility:**

- Snow Cover
- Vegetation
- None
- Other

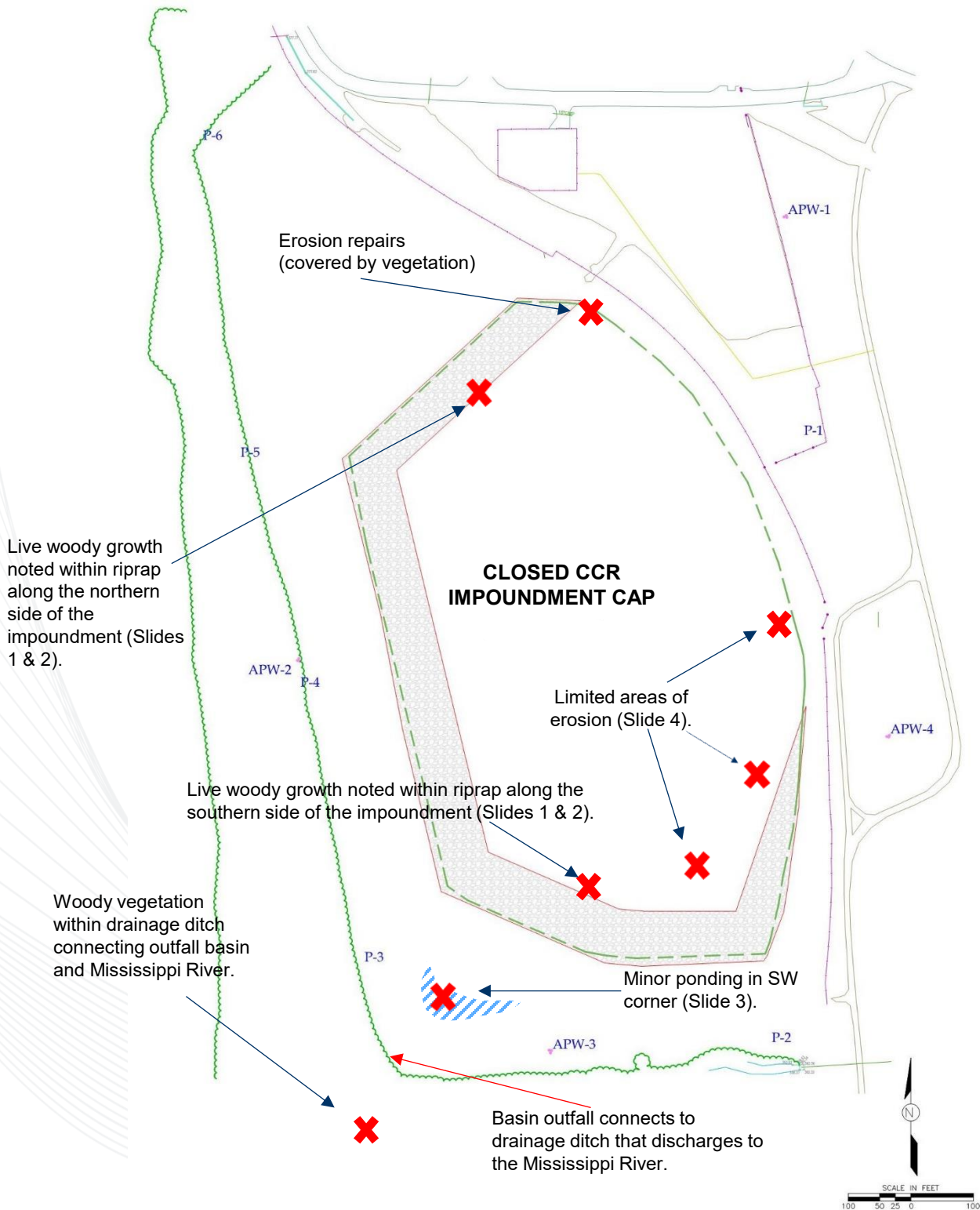
\_\_\_\_\_

**Observations in Detail Below:**

- ERM onsite for the Q2 2025 inspection of the CCR impoundment and groundwater sampling event.
- Repairs made to the erosional channel on the NE face of the impoundment cap in 2024 held. ERM will continue to monitor.
- Continued monitoring of additional erosional channels across the west, east, and southern faces of the closed CCR impoundment cap. No additional controls necessary currently. ERM will continue to monitor.
- Ponding continues to be noted in the SW corner of the basin near the outfall. No adverse effects to the impoundment cap are associated with the ponding. ERM will continue to monitor.
- Woody vegetation noted on the north and south face of the closed CCR impoundment cap. Vegetation produced foliage and was alive during the Q2 inspection. ERM recommends herbicide treatment in the summer of 2025.
- Woody vegetation noted in the outfall channel to the drainage ditch connected to the Mississippi River. Vegetation does not present an immediate issue to surface water flowing from the basin to the drainage ditch to the river. ERM will continue to monitor and recommend removal if necessary.

Attach additional pages if necessary.

# Observation Locations Map



# Grand Tower Energy Center Q2 2025 Closed CCR Impoundment Cap Inspection

Woody vegetation observed in the N and S side riprap



View facing SW from the southern side of the impoundment cap

View facing west from the NE corner of the impoundment cap



# Woody Growth Observations

Live woody vegetation noted within riprap up to 1” diameter.



Woody vegetation on north-facing riprap.  
Picture facing south from path north of the impoundment.



Woody vegetation on south-facing riprap.  
Picture facing west from riprap.

# Ponding in the SW Corner of Site Basin Near the Outfall



Ponded area in southwest corner of site as viewed from atop impoundment cap.



Ponded area in SW corner of site as viewed from west side atop the impoundment cap.

Note: Mississippi River backwater enters the GTEC CCR Impoundment Basin when the river level gage operated by the U.S. Army Corps of Engineers at Grand Tower, IL reaches a stage of approximately 27 ft.

# Minor Erosional Channels

Burrow/hole, roughly 10" deep, on east side of impoundment cap. Photo taken facing west from the bottom of the impoundment cap.



Erosion on the SE corner, roughly 6" deep, of impoundment cap. Photo taken facing west towards the impoundment cap.



Erosion on the east side, roughly 4" deep, of impoundment cap. Photo taken facing west from the bottom of the impoundment cap.



Note: North and West sides of impoundment cap were not cleared of vegetation, limiting proper inspection of erosional channels.

APPENDIX B FOURTH QUARTER 2024  
GROUDNWATER MONITORING WELL  
INSPECTION FORMS

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-01R Date: 6/24/2025  
Total Depth (Actual): 58.30 (BTOC) Time: 1046  
Total Depth (Measured): 58.9 Collection Order: 5  
Depth to Water (Measured): 24.65

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-02 Date: 6/24/2025  
Total Depth (Actual): 58.75 (BTOC) Time: 1420  
Total Depth (Measured): 58.15 Collection Order: 11  
Depth to Water (Measured): 22.71

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: Yes  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

Water in casing almost to well level  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-03 Date: 6/24/2025  
Total Depth (Actual): 59.65 (BTOC) Time: 1322  
Total Depth (Measured): 59.7 Collection Order: 6  
Depth to Water (Measured): 23.87

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

### Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: No  
Locks intact: Yes  
Weep hole present: Yes  
Water present in protector: Yes  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

### Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

### Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

### General Comments:

No tubing present well. Replaced with new dedicated tubing during sampling.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-04 Date: 6/24/2025  
Total Depth (Actual): 60.40 (BTOC) Time: 1108  
Total Depth (Measured): 60.39 Collection Order: 3  
Depth to Water (Measured): 25.7

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: No  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-05R Date: 6/24/2025  
Total Depth (Actual): 56.90 (BTOC) Time: 1425  
Total Depth (Measured): 62.8 Collection Order: 12  
Depth to Water (Measured): 22.41

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: No  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

Silty/sandy bottom - sediment present in bottom of tubing  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-06S Date: 6/24/2025  
Total Depth (Actual): 63.98 (BTOC) Time: 1020  
Total Depth (Measured): 64.62 Collection Order: 1  
Depth to Water (Measured): 21.71

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: No  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

No tubing present well. Replaced with new dedicated tubing during sampling.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-06D Date: 6/24/2025  
Total Depth (Actual): 152.57 (BIOC) Time: 1015  
Total Depth (Measured): 156.44 Collection Order: 2  
Depth to Water (Measured): 21.74

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: No  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

No tubing present well. Replaced with new dedicated tubing during sampling.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-07 Date: 6/24/2025  
Total Depth (Actual): 63.35 (BTOC) Time: 1137  
Total Depth (Measured): 63.18 Collection Order: 8  
Depth to Water (Measured): 18.72

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

Ants in well protector and tubing.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-08 Date: 6/24/2025  
Total Depth (Actual): 61.89 (BTOC) Time: 1312  
Total Depth (Measured): 62.2 Collection Order: 7  
Depth to Water (Measured): 20.95

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-09 Date: 6/24/2025  
Total Depth (Actual): 63.40 (BTOC) Time: 1254  
Total Depth (Measured): 63.1 Collection Order: 4  
Depth to Water (Measured): 25.09

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-10S Date: 6/24/2025  
Total Depth (Actual): 62.84 (BTOC) Time: 1159  
Total Depth (Measured): 62.9 Collection Order: 10  
Depth to Water (Measured): 18.04

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Well Inspection Worksheet

Grand Tower Energy Center

Grand Tower, IL

Well ID: APW-10D Date: 6/24/2025  
Total Depth (Actual): 98.19 (BTOC) Time: 1156  
Total Depth (Measured): 98.93 Collection Order: 9  
Depth to Water (Measured): 17.59

Is well screen occluded more than 10%? No  
If Yes, list steps for redevelopment: \_\_\_\_\_

LNAPL Present: No  
If Yes, measured thickness = N/A  
DNAPL Present: No  
If Yes, measured thickness = N/A

## Well Completion Type:

Condition of protector: INTACT Yes  
Well ID present and readable: Yes  
Locks intact: Yes  
Weep hole present: No  
Water present in protector: No  
Are well "markers" (i.e.bumper posts) needed at this location: No  
If yes, are current well "markers" adequate around well: N/A  
Comments: \_\_\_\_\_

## Well Surface Seal: INTACT

Is surrounding area sloped away from well: Yes  
Any observed ponding: No  
Is surface run-off flow evident around well: No

## Well Casing Condition: INTACT

Size of well (diameter) = 2 inches  
Marking point present: Yes  
Well cap in place: Yes  
Comments: \_\_\_\_\_

## General Comments:

Ants in well protector and on tubing.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPENDIX C FOURTH QUARTER 2024 FIELD DATA  
FORMS

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-1R

Development  
 Purging

Date: 6/25/2025 Time Start: 1030 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 50.90  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 24.80  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump  Submersible (s)  Peristaltic (p)  Whale Pump (w)  Other \_\_\_\_\_  
 Bailer  Bottom Valve  Double Check Valve  Teflon  Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-01R-WG-20250625 Date/Time: 6/25/2025; 1110  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1031			250	53.9	24.80	-	initial	6.93	293.7	20.5	4.88	265.5	420.0	Cloudy, no odor
1036			450	53.9	24.80	1	2.0	6.49	359.9	15.5	2.97	286.10	294.0	Cloudy, no odor
1041			400	53.9	24.80	1	3.0	6.51	389.4	16.8	2.62	277.90	173.0	Cloudy, no odor
1046			400	53.9	24.80	1	4.0	6.47	395.7	17.7	2.56	269.40	121.0	Cloudy, no odor
1051			400	53.9	24.80	1	5.0	6.48	403.7	17.9	2.51	263.90	74.8	Cloudy, no odor
1056			400	53.9	24.80	1	6.0	6.49	409.7	17.8	2.45	261.30	45.3	Cloudy, no odor
1101			400	53.9	24.80	1	7.0	6.49	412.3	17.9	2.39	259.90	48.1	Cloudy, no odor
1106			400	53.9	24.80	1	8.0	6.49	414.4	17.9	2.38	258.3	47.6	Cloudy, no odor

Comments/Well Condition: Final DTW: 24.80

Signature (s) Emma Portell Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-2

Development  
 Purging

Date: 6/26/2025 Time Start: 0830 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 58.15  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 22.20  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-02-WG-20250626 Date/Time: 6/26/25; 0930  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
0835			450	53.15	22.20	-	initial	7.17	980	18.6	2.20	140.7	256.0	Slightly cloudy, rotten egg-like odor
0840			450	53.15	29.80	1	1.0	7.15	956	17.3	0.31	-5.4	75.7	Slightly cloudy, rotten egg-like odor
0845			450	53.15	33.56	1	2.0	7.08	954	17.6	0.27	-17.8	84.4	Slightly cloudy, rotten egg-like odor
0850			450	53.15	36.61	1	3.0	7.08	960	18.2	0.27	-32.7	104.0	Slightly cloudy, rotten egg-like odor
0855			450	53.15	38.94	1	4.0	7.10	965	18.5	0.25	-54.0	102.0	Slightly cloudy, no odor
0900			450	53.15	40.80	1	5.0	7.12	970	18.9	0.23	-76.6	110.0	Slightly cloudy, no odor
0905			450	53.15	40.55	1	6.0	7.13	974	19.2	0.20	-92.0	113.0	Slightly cloudy, no odor
0910			450	53.15	41.95	1	7.0	7.15	977	19.3	0.17	-107.5	120	Slightly cloudy, no odor
0915			450	53.15	43.20	1	8.0	7.15	979	19.6	0.16	-111.9	125	Slightly cloudy, no odor
0920			450	53.15	41.65	1	9.0	7.16	982	19.7	0.15	-117.0	122	Slightly cloudy, no odor

Comments/Well Condition: Final DTW: 42.46

Signature (s) Emna Portell Date 6/26/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-3

Development  
 Purging

Date: 6/25/2025 Time Start: 1145 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 59.70  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 23.95  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump  
 Submersible (s)  
 Peristaltic (p)  
 Whale Pump (w)  
 Other \_\_\_\_\_

Bailer  
 Bottom Valve  
 Double Check Valve  
 Teflon  
 Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-03-WG-20250625 Date/Time: 6/25/25; 1220  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				Increment	Cumulative							
1149			500	54.7	23.95	-	initial	7.87	674	18.5	2.37	249.6	22.60	Clear, no odor
1154			500	54.7	23.95	1	1.0	8.02	681	16.9	0.40	199.7	14.40	Clear, no odor
1159			500	54.7	23.95	1	2.0	8.02	687	17.3	0.29	90.7	10.00	Clear, no odor
1204			500	54.7	23.95	1	3.0	8.02	689	17.5	0.24	-56.4	7.34	Clear, no odor
1209			500	54.7	23.95	1	4.0	8.02	690	17.5	0.20	-58.9	6.93	Clear, no odor
1214			500	54.7	23.95	1	5.0	8.03	692	17.4	0.17	-60.6	6.49	Clear, no odor

Comments/Well Condition: Final DTW: 23.95

Signature (s) *Emma Portell* Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-4

Development  
 Purging

Date: 6/25/2025 Time Start: 0743 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 60.39  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 25.80  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration \_\_\_\_\_  
 YSI \_\_\_\_\_ Pro Plus  
 Solinst \_\_\_\_\_ Water Level Meter  
 Other: \_\_\_\_\_ HACH Turbidity Meter

## Method of Purge/Development

Pump  Submersible (s)  Peristaltic (p)  Whale Pump (w)  Other \_\_\_\_\_  
 Bailer  Bottom Valve  Double Check Valve  Teflon  Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-04-WG-20250625 Date/Time: 6/25/25; 0815  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
0745			400	55.39	25.90	-	initial	7.16	503	19.2	7.05	230.7	49.5	Clear, no odor
0750			400	55.39	25.90	1	1.0	7.17	528	18.3	3.62	236.1	50.1	Clear, no odor
0755			400	55.39	25.90	1	2.0	7.18	576	17.0	0.62	238.1	61.5	Clear, no odor
0800			400	55.39	25.90	1	3.0	7.19	577	16.9	0.46	238.1	59.5	Clear, no odor
0805			400	55.39	25.90	1	4.0	7.18	578	17.0	0.40	238.5	56.9	Clear, no odor
0810			400	55.39	25.90	1	5.0	7.18	579	17.1	0.35	237.8	54.7	Clear, no odor

Comments/Well Condition: Final DTW: 25.90

Signature (s) *Emma Portell* Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-5R

Development  
 Purging

Date: 6/26/2025 Time Start: 0950 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 62.80  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 22.58  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration \_\_\_\_\_  
 YSI \_\_\_\_\_ Pro Plus  
 Solinst \_\_\_\_\_ Water Level Meter  
 Other: \_\_\_\_\_ HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-05R-WG-20250626 Date/Time: 6/26/25; 1045  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: DUP-001-WG-20250626; 0001

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
0954			350	57.8	22.62	-	initial	7.47	637	23.3	6.00	114.1	81.2	Cloudy, no odor
959			350	57.8	22.62	1	1.0	7.43	657	18.5	3.70	54.70	975.0	Very turbid, no odor
1004			350	57.8	22.62	1	2.0	7.41	660	17.8	1.56	-23.00	619.0	Very turbid, no odor
1009			350	57.8	22.62	1	3.0	7.45	663	16.4	0.21	-91.00	264.0	Very turbid, no odor
1014			350	57.8	22.62	1	4.0	7.45	662	16.1	0.16	-115.50	79.8	Very turbid, no odor
1019			350	57.8	22.62	1	5.0	7.41	665	16.0	0.13	-126.10	51.6	Clear, no odor
1024			350	57.8	22.62	1	6.0	7.41	665	15.9	0.12	-130.80	28.7	Clear, no odor
1029			350	57.8	22.62	1	7.0	7.41	669	16.1	0.1	-135.9	16.1	Clear, no odor
1034			350	57.8	22.62	1	8.0	7.41	670	16	0.1	-138.3	15.1	Clear, no odor
1039			350	57.8	22.62	1	9.0	7.41	671	16.1	0.09	-139.9	14.8	Clear, no odor

Comments/Well Condition: Final DTW: 22.62

Signature (s) *Emma Portell* Date 6/26/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-6S

Development  
 Purging

Date: 6/24/2025 Time Start: 1455 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-1.632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 64.62  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 21.89  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-06S-WG-20250624 Date/Time: 6/24/25; 1545  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1457			150	59.62	21.89	-	initial	6.95	763	16.2	5.80	223.4	35.2	Clear, no odor - adjusted pump settings
1502			450	59.62	21.89	1	1.0	6.99	779	16.5	0.33	82.0	672	Gray, cloudy no odor
1507			450	59.62	21.89	1	2.0	7.05	778	17.3	0.23	-64.1	340	Gray, cloudy no odor
1512			450	59.62	21.89	1	3.0	7.06	780	19.1	0.22	-89.9	266	Gray, cloudy no odor
1517			450	59.62	21.89	1	4.0	7.08	776	16.6	0.20	-106.7	80.7	Gray, cloudy no odor
1522			450	59.62	21.89	1	5.0	7.07	775	15.4	0.13	-111.8	18.8	Gray, cloudy no odor
1527			450	59.62	21.89	1	6.0	7.08	773	16.4	0.12	-116.1	14.8	Clear, rotten egg-like odor
1532			450	59.62	21.89	1	7.0	7.08	786	16.8	0.13	-120.8	22.7	Clear, rotten egg-like odor
1537			450	59.62	21.89	1	8.0	7.08	784	16.6	0.13	-122.1	23.5	Clear, rotten egg-like odor
1542			450	59.62	21.89	1	9.0	7.08	781	16.8	0.13	-123.0	22.9	Clear, rotten egg-like odor

Comments/Well Condition: Final DTW: 21.89

Signature (s) Emma Portell Date 6/24/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-6D

Development  
 Purging

Date: 6/24/2025 Time Start: 1614 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 156.44  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 21.74  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration \_\_\_\_\_  
 YSI \_\_\_\_\_ Pro Plus  
 Solinst \_\_\_\_\_ Water Level Meter  
 Other: \_\_\_\_\_ HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-06D-WG-20250624 Date/Time: 9/5/1904  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1615			500	151.44	21.70	-	initial	7.18	716	17.9	3.53	128.2	19.6	Clear, no odor
1620			500	151.44	21.70	1	1.0	7.20	728	18.2	2.24	57.0	71.2	Clear, rotten egg-like odor
1625			500	151.44	21.70	1	2.0	7.21	741	17.8	1.85	-19.5	69.7	Clear, rotten egg-like odor
1630			500	151.44	21.70	1	3.0	7.22	743	17.3	1.18	-47.3	46.2	Clear, rotten egg-like odor
1635			400	151.44	21.70	1	4.0	7.22	744	17.0	0.99	-64.8	33.0	Clear, rotten egg-like odor
1640			400	151.44	21.70	1	5.0	7.22	744	17.0	0.81	-75.7	18.0	Clear, rotten egg-like odor
1645			400	151.44	21.70	1	6.0	7.22	742	16.9	0.72	-81.7	12.6	Clear, rotten egg-like odor
1650			400	151.44	21.70	1	7.0	7.22	740	16.8	0.58	-86.8	8.86	Clear, rotten egg-like odor
1655			400	151.44	21.70	1	8.0	7.22	747	16.9	0.49	-90.7	7.34	Clear, rotten egg-like odor
1700			400	151.44	21.70	1	9.0	7.22	746	16.9	0.48	-92.0	4.54	Clear, rotten egg-like odor
1705			400	151.44	21.70	1	10.0	7.22	746	16.9	0.46	-93.1	4.81	Clear, rotten egg-like odor

Comments/Well Condition: Final DTW: 21.75

Signature (s) *Emma Portell* Date 6/24/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-7

Development  
 Purging

Date: 6/25/2025 Time Start: 1415 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 63.18  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 19.05  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-07-WG-20250625 Date/Time: 6/25/25; 1455  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1418			250	58.18	19.05	-	initial	7.25	1024	21.4	4.93	218.7	115.0	Clear, plastic-like odor
1423			250	58.18	19.05	1	1.0	6.74	1032	17.5	0.33	18.0	86.3	Clear, plastic-like odor
1428			250	58.18	19.05	1	2.0	6.74	1038	17.6	0.23	-38.1	51.9	Clear, plastic-like odor
1433			250	58.18	19.05	1	3.0	6.74	1040	17.9	0.18	-55.1	42.4	Clear, plastic-like odor
1438			250	58.18	19.05	1	4.0	6.74	1043	18.0	0.15	-63.7	19.7	Clear, plastic-like odor
1443			250	58.18	19.05	1	5.0	6.74	1043	18.0	0.13	-68.7	8.9	Clear, plastic/hydrocarbon-like odor
1448			250	58.18	19.05	1	6.0	6.74	1045	17.9	0.11	-72.7	5.6	Clear, plastic/hydrocarbon-like odor
1453			250	58.18	19.05	1	7.0	6.74	1046	18.0	0.10	-75.3	5.56	Clear, plastic/hydrocarbon-like odor

Comments/Well Condition: Finla DTW: 19.15

Signature (s) Emna Portell Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-8

Development  
 Purging

Date: 6/25/2025 Time Start: 1300 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 62.20  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 21.05  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-08-WG-20250625 Date/Time: 6/25/25; 1355  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1306			350	57.20	21.05	-	initial	7.09	624	15.7	0.54	170.7	504	Silty, turbid, no odor
1311			350	57.20	21.05	1	1.0	6.98	639	17.4	0.25	147.5	839	Silty, turbid, no odor
1316			350	57.20	21.05	1	2.0	6.92	633	18.6	0.17	128.0	627	Silty, turbid, no odor
1321			350	57.20	21.05	1	3.0	6.90	635	18.3	0.17	124.7	351	Silty, turbid, no odor
1326			350	57.20	21.05	1	4.0	6.91	637	18.6	0.15	117.8	240	Silty, turbid, no odor
1331			350	57.20	21.05	1	5.0	6.92	640	18.6	0.13	114.1	85.5	Silty, turbid, no odor
1336			350	57.20	21.05	1	6.0	6.92	630	16.6	0.11	113.5	21.3	Clear, no odor
1341			350	57.20	21.05	1	7.0	6.92	632	17.0	0.10	112.6	9.42	Clear, no odor
1346			350	57.20	21.05	1	8.0	6.92	630	16.7	0.09	112.4	8.15	Clear, no odor
1351			350	57.20	21.05	1	9.0	6.92	632	16.8	0.09	112.1	6.70	Clear, no odor

Final DTW: 21.05

Signature (s) Emna Portell Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-9

Development  
 Purging

Date: 6/25/2025 Time Start: 0900 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 63.10  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 25.20  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-09-WG-20250625 Date/Time: 6/25/25; 0945  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: DUP-002-WG-20250625; 0002

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
0903			350	58.1	25.20	-	initial	7.47	494.9	16.1	1.49	237.9	173.0	Cloudy, no odor
0908			350	58.1	25.21	1	2.0	7.35	502	18.1	0.98	244.1	79.1	Cloudy, no odor
0913			350	58.1	25.21	1	3.0	7.33	512	18.3	0.78	244.9	61.1	Cloudy, no odor
0918			350	58.1	25.21	1	4.0	7.33	519	18.5	0.65	244.9	52.0	Cloudy, no odor
0923			350	58.1	25.21	1	5.0	7.32	524	18.5	0.49	244.4	40.4	Cloudy, no odor
0928			350	58.1	25.21	1	6.0	7.32	528	18.5	0.43	243.8	31.0	Cloudy, no odor
0933			350	58.1	25.21	1	7.0	7.32	532	18.5	0.37	242.7	33.7	Cloudy, no odor
0938			350	58.1	25.21	1	8.0	7.32	534	18.5	0.36	241.4	31.8	Cloudy, no odor

Comments/Well Condition: Final DTW: 25.21

Signature (s) Emna Portell Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-10S

Development  
 Purging

Date: 6/25/2025 Time Start: 1645 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 62.90  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 18.27  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump  Submersible (s)  Peristaltic (p)  Whale Pump (w)  Other \_\_\_\_\_  
 Bailer  Bottom Valve  Double Check Valve  Teflon  Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-10S-WG-20250625 Date/Time: 6/25/25; 1725  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1647			300	57.90	18.27	-	initial	6.97	1213	16.9	0.54	32.6	71.3	Clear, slight rotten egg-like odor
1652			300	57.90	18.27	1	1.0	6.95	1222	17.4	0.23	-85.8	920	Silty gray, no odor
1657			500	57.90	18.27	1	2.0	6.94	1217	15.8	0.15	-120.5	476	Silty gray, no odor - adjusted pump settings
1702			500	57.90	18.27	1	3.0	6.93	1220	15.9	0.12	-129.3	286	Silty gray, no odor
1707			500	57.90	18.27	1	4.0	6.93	1221	15.8	0.10	-133.3	168	Silty gray, no odor
1712			500	57.90	18.27	1	5.0	6.93	1222	15.8	0.09	-136.4	64.1	Silty gray, no odor
1717			500	57.90	18.27	1	6.0	6.93	1222	15.7	0.08	-137.8	62.6	Silty gray, no odor
1722			500	57.90	18.27	1	7.0	6.93	1222	15.7	0.07	-138.5	60.1	Silty gray, no odor

Comments/Well Condition: Final DTW: 18.27

Signature (s) Emma Portell Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

# Well Development/Purging Data Sheet

Well/Piezometer Number: APW-10D

Development  
 Purging

Date: 6/25/2025 Time Start: 1534 Page 1 of 1

Project Name: GTEC Post Closure Monitoring Q2 2025 Project Manager/Samplers E. Portell / C. Lowell Project No. 0761817

Client Company: Grand Tower Energy Center Project/Task No. 2

Site Name: GTEC Landfill Site Address 1820 Power Plant Rd Grand Tower, Illinois 62942

## Development Criteria

3 Casing Volumes of Water Removal  
 Stabilization of Indicator Parameters  
 Other \_\_\_\_\_

## Water Volume Calculation

(2"-.1632 4"-.6524 6"-1.5)  
 Total Depth of Well (feet) 98.93  
 Screen Interval \_\_\_\_\_ to \_\_\_\_\_  
 Initial Depth to Water (feet) 17.66  
 Height (h) of Water Column in Well (feet) \_\_\_\_\_  
 Diameter (inches): Well 2" Gravel Pack \_\_\_\_\_

## Water Quality Instrument

Calibration  
 YSI Pro Plus  
 Solinst Water Level Meter  
 Other: HACH Turbidity Meter

## Method of Purge/Development

Pump	Bailer
<input checked="" type="checkbox"/> Submersible (s)	<input type="checkbox"/> Bottom Valve
<input type="checkbox"/> Peristaltic (p)	<input type="checkbox"/> Double Check Valve
<input type="checkbox"/> Whale Pump (w)	<input type="checkbox"/> Teflon
<input type="checkbox"/> Other _____	<input type="checkbox"/> Disposable

Item	Water Vol in Well	Purge Mult.	Purge/Dev Volume (Gal)
Well Casing			
Gravel Pack			
Drilling Fluids			
Total			

## Water Management

Surface Discharge  Containerize

## Sample Information:

ID: APW-10D-WG-20250625 Date/Time: 6/25/25; 1620  
 Analysis: \_\_\_\_\_  
 QA/QC Samples: NA

## Stabilization Data

Time	Purge Rate		Removal Rate (mL/min)	Intake Depth (feet)	Water Depth (feet)	Water Volume Removed (gallons)		pH	Sp. Cond (µS/cm)	Temp (°C)	DO (mg/L)	ORP (mV)	Turbidity (mV)	Comments
	Vol (ml)	Time(sec)				v/t*60	Increment							
1535			300	93.93	17.66	-	initial	7.39	579	18.7	2.36	151.3	65.4	Clear, no odor
1540			300	93.93	17.66	1	1.0	7.02	676	18.2	0.46	75.70	352	Cloudy, no odor
1545			300	93.93	17.66	1	2.0	6.99	688	18.5	0.35	58.40	181	Clear, no odor
1550			300	93.93	17.66	1	3.0	6.99	691	18.8	0.31	55.30	176	Cloudy, no odor
1555			300	93.93	17.66	1	4.0	6.99	690	16.4	0.16	55.50	132	Cloudy, no odor
1600			300	93.93	17.66	1	5.0	6.99	691	16.2	0.13	55.90	116	Cloudy, no odor
1605			300	93.93	17.66	1	6.0	6.99	691	16.1	0.12	55.90	65.8	Cloudy, no odor
1610			300	93.93	17.66	1	7.0	6.99	693	16.1	0.10	54.8	60.0	Cloudy, no odor
1615			300	93.93	17.66	1	8.0	6.99	694	16.2	0.10	53.2	59.9	Cloudy, no odor

Comments/Well Condition: Final DTW: 17.66

Signature (s) Emma Portell Date 6/25/2025 Reviewer \_\_\_\_\_ Date \_\_\_\_\_

APPENDIX D FOURTH QUARTER 2024 LABORATORY  
ANALYTICAL REPORT

**ERM - St. Louis, MO**

Sample Delivery Group: L1873853  
Samples Received: 06/27/2025  
Project Number: 0599247  
Description: Grand Tower Energy Center Groundwater 2Q25 Sampling  
Report To: Randy Homburg  
1968 Craig Road, Suite 100  
Saint Louis, MO 63146

Entire Report Reviewed By:



John Hawkins  
Project Manager

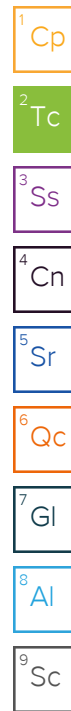
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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# SAMPLE SUMMARY

## APW-03-WG-20250625 L1873853-01

Collected by Emma Portell  
 Collected date/time 06/25/25 12:20  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566039	1	07/25/25 00:18	07/28/25 11:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

## APW-08-WG-20250625 L1873853-02

Collected by Emma Portell  
 Collected date/time 06/25/25 13:55  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566039	1	07/25/25 00:18	07/28/25 11:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

## APW-07-WG-20250625 L1873853-03

Collected by Emma Portell  
 Collected date/time 06/25/25 14:55  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566039	1	07/25/25 00:18	07/28/25 11:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

7 Gl

8 Al

9 Sc

## APW-10S-WG-20250625 L1873853-04

Collected by Emma Portell  
 Collected date/time 06/25/25 17:25  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566039	1	07/25/25 00:18	07/28/25 11:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

## APW-10D-WG-20250625 L1873853-05

Collected by Emma Portell  
 Collected date/time 06/25/25 16:20  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566039	1	07/25/25 00:18	07/28/25 11:01	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

## APW-06S-WG-20250624 L1873853-06

Collected by Emma Portell  
 Collected date/time 06/24/25 15:43  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

# SAMPLE SUMMARY

## APW-06D-WG-20250624 L1873853-07

Collected by Emma Portell  
 Collected date/time 06/24/25 17:10  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN



## APW-05R-WG-20250626 L1873853-08

Collected by Emma Portell  
 Collected date/time 06/26/25 10:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN



## APW-09-WG-20250625 L1873853-09

Collected by Emma Portell  
 Collected date/time 06/25/25 09:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN



## APW-02-WG-20250626 L1873853-10

Collected by Emma Portell  
 Collected date/time 06/26/25 09:30  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

## APW-01R-WG-20250625 L1873853-11

Collected by Emma Portell  
 Collected date/time 06/25/25 11:10  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

## APW-04-WG-20250625 L1873853-12

Collected by Emma Portell  
 Collected date/time 06/25/25 08:15  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

# SAMPLE SUMMARY

EB-01-WG-20250624 L1873853-13

Collected by Emma Portell  
 Collected date/time 06/24/25 13:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

DUP-01-WG-20250626 L1873853-14

Collected by Emma Portell  
 Collected date/time 06/26/25 00:01  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

DUP-02-WG-20250625 L1873853-15

Collected by Emma Portell  
 Collected date/time 06/25/25 00:02  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2566473	1	07/26/25 00:30	07/29/25 18:11	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2567708	1	07/28/25 12:39	07/30/25 19:36	ZRG	Mt. Juliet, TN

<sup>8</sup>Al

<sup>9</sup>Sc

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



John Hawkins  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.702	J	0.515	0.554	0.840	0.265	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Barium	100					30.0-143	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Yttrium	98.1					30.0-136	07/28/2025 11:01	<a href="#">WG2566039</a>

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.15		0.603	0.909	07/30/2025 19:36	<a href="#">WG2567708</a>

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.451		0.313	0.484	0.348	0.118	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	94.4					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.546	J	0.543	0.577	0.907	0.288	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Barium	120					30.0-143	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Yttrium	99.1					30.0-136	07/28/2025 11:01	<a href="#">WG2566039</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.804	J	0.576	0.928	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.258		0.193	0.318	0.196	0.0508	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	107					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.800	J	0.610	0.652	1.00	0.316	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Barium	123					30.0-143	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Yttrium	89.7					30.0-136	07/28/2025 11:01	<a href="#">WG2566039</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.927	J	0.634	1.03	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.127	J	0.171	0.261	0.248	0.0644	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	93.9					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.575	J	0.588	0.623	0.983	0.311	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Barium	108					30.0-143	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Yttrium	94.0					30.0-136	07/28/2025 11:01	<a href="#">WG2566039</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.02		0.632	0.997	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.446		0.231	0.400	0.168	0.0405	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	101					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.987		0.557	0.603	0.886	0.280	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Barium	115					30.0-143	07/28/2025 11:01	<a href="#">WG2566039</a>
(T) Yttrium	96.5					30.0-136	07/28/2025 11:01	<a href="#">WG2566039</a>

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.14		0.580	0.909	07/30/2025 19:36	<a href="#">WG2567708</a>

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.155	J	0.161	0.278	0.205	0.0562	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	103					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.01	J	0.805	0.856	1.33	0.431	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	99.1					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	91.7					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.30	J	0.842	1.36	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.291	J	0.247	0.383	0.295	0.0930	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	97.9					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.586	J	0.483	0.520	0.799	0.259	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	101					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	98.1					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.960		0.555	0.854	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.374		0.274	0.429	0.302	0.0955	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	100					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.879	J	0.789	0.833	1.31	0.423	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	90.1					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	89.7					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

1 Cp

2 Tc

3 Ss

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.879	J	0.813	1.37	07/30/2025 19:36	<a href="#">WG2567708</a>

4 Cn

5 Sr

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	-0.0160	U	0.198	0.231	0.385	0.133	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	109					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

6 Qc

7 Gl

8 Al

9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.0472	<u>U</u>	0.567	0.578	0.995	0.320	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	116	<u>C1</u>				30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	97.9					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.179	<u>U</u>	0.600	1.04	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.132	<u>J</u>	0.195	0.291	0.293	0.0887	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	108					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.13	J	0.873	0.923	1.43	0.457	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	105					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	101					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.62		0.918	1.45	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.497		0.284	0.457	0.261	0.0789	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	110					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.654	J	0.609	0.647	1.01	0.323	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	80.5					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	102					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.867	J	0.646	1.05	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.213	J	0.216	0.330	0.276	0.0814	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	110					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	1.08		0.553	0.602	0.866	0.276	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	109					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	90.9					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.09		0.574	0.914	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.0133	<u>U</u>	0.154	0.183	0.292	0.0966	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	107					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.211	<u>U</u>	0.366	0.387	0.627	0.200	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	105					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	91.1					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.211	<u>U</u>	0.380	0.687	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	-0.0833	<u>U</u>	0.101	0.172	0.282	0.0934	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	99.9					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.663		0.367	0.404	0.581	0.186	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	102					30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	100					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.850		0.434	0.666	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.188	J	0.232	0.341	0.326	0.105	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	109					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.299	<u>U</u>	0.463	0.487	0.790	0.252	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Barium	116	<u>C1</u>				30.0-143	07/29/2025 18:11	<a href="#">WG2566473</a>
(T) Yttrium	97.1					30.0-136	07/29/2025 18:11	<a href="#">WG2566473</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.519	<u>J</u>	0.537	0.878	07/30/2025 19:36	<a href="#">WG2567708</a>

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.220	<u>J</u>	0.272	0.404	0.382	0.128	07/30/2025 19:36	<a href="#">WG2567708</a>
(T) Barium-133	110					30.0-143	07/30/2025 19:36	<a href="#">WG2567708</a>

Method Blank (MB)

(MB) R4251192-1 07/28/25 11:01

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.110	<u>U</u>	0.306	0.528	0.169
(T) Barium	109		109		
(T) Yttrium	98.0		98.0		

L1873775-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1873775-01 07/28/25 11:01 • (DUP) R4251192-5 07/28/25 11:01

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0627	0.573	1.00	0.320	-0.0209	0.456	0.812	0.257	200	0.114	<u>U</u>	20	3
(T) Barium	110				104	104							
(T) Yttrium	95.4				95.5	95.5							

Laboratory Control Sample (LCS)

(LCS) R4251192-2 07/28/25 11:01

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.08	102	80.0-120	
(T) Barium			105		
(T) Yttrium			94.7		

L1880631-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1880631-20 07/28/25 11:01 • (MS) R4251192-3 07/28/25 11:01 • (MSD) R4251192-4 07/28/25 11:01

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	33.3	0.600	29.5	16.8	86.7	96.7	1	70.0-130		<u>J3</u>	55.0		20
(T) Barium		91.2			79.2	92.2							
(T) Yttrium		95.7			93.9	91.8							

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4251251-1 07/29/25 18:11

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.291	<span style="color: red;">⬇</span>	0.314	0.315	0.169
(T) Barium	108		108		
(T) Yttrium	85.5		85.5		

L1873388-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1873388-01 07/29/25 18:11 • (DUP) R4251251-5 07/29/25 18:11

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.381	0.652	0.657	0.360	0.869	0.737	0.723	0.396	78.0	0.496		20	3
(T) Barium	111				112	112					<span style="color: red;">C1</span>		
(T) Yttrium	89.7				89.5	89.5							

Laboratory Control Sample (LCS)

(LCS) R4251251-2 07/29/25 18:11

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.75	95.0	80.0-120	
(T) Barium			96.2		
(T) Yttrium			87.8		

L1880629-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1880629-26 07/29/25 19:15 • (MS) R4251251-3 07/29/25 18:11 • (MSD) R4251251-4 07/29/25 18:11

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	1.70	16.6	17.9	89.0	97.0	1	70.0-130			7.72		20
(T) Barium		65.4			97.6	102							
(T) Yttrium		105			93.3	88.4							

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Method Blank (MB)

(MB) R4251824-1 07/30/25 19:36

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0216	<u>U</u>	0.0464	0.0770	0.0238
(T) Barium-133	90.8		90.8		

L1873775-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1873775-01 07/30/25 19:36 • (DUP) R4251824-5 07/30/25 19:36

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	-0.0118	0.0894	0.214	0.0630	0.186	0.210	0.285	0.0931	200	0.867	<u>J</u>	20	3
(T) Barium-133	108				106	106							

Laboratory Control Sample (LCS)

(LCS) R4251824-2 07/30/25 19:36

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.84	96.8	80.0-120	
(T) Barium-133			85.6		

L1873853-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873853-15 07/30/25 19:36 • (MS) R4251824-3 07/30/25 19:36 • (MSD) R4251824-4 07/30/25 19:36

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.220	21.6	21.8	107	108	1	75.0-125			0.876		20
(T) Barium-133		110			106	110							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

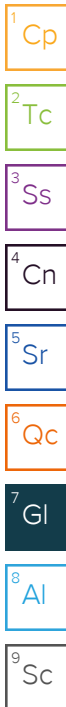
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
TPU	Total Propagated Uncertainty reported at 2 sigma (counting error plus all measurable variables).
Lc	Decision Level or Critical Level. DOE required Detection limit at a 68% confidence level.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

### Qualifier Description

C1	Tracer recovery limits have been exceeded; values are outside upper control limits.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
U	Below Detectable Limits: Indicates that the analyte was not detected.



# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Company Name/Address:  
**ERM - St. Louis, MO**  
**1968 Craig Road, Suite 100**  
**Saint Louis, MO 63146**

Billing Information:  
**Accounts Payable Dept.**  
**1701 Golf Road, Suite 1-1000**  
**Rolling Meadows, IL 60008-4242**

Pres  
 Chk

Analysis / Container / Preservative	
12	12

Chain of Custody Page 1 of 2



**MT JULIET, TN**

12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # **L1673657**  
**F186**

Acctnum: **ERMSCMO**  
 Template: **T243472**  
 Prelogin: **P1145310**  
 PM: **206 - Jeff Carr**  
 PB:

Shipped Via: **FedEX Ground**

Report to:  
**Randy Homburg 314-682-3980**

Email To:  
**Randy.Homburg@erm.com; Tim.Wilson@erm.co**

Project Description:  
**Grand Tower Energy Center Groundwater 2Q25**

City/State Collected:  
**Grand Tower, IL**

Please Circle:  
 PT MT **CT** ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #  
**0599247**

Lab Project #  
**ERMSCMO-0599247**

Collected by (print):  
**Emma Portell**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Emma Portell**

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day  STD TAT

Quote #

Immediately Packed on Ice N \_\_\_ Y

Date Results Needed

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add HNO3
APW-03-WG-2025 0625	Grab	NPW	54.70	6/25/25	1220	3	X	X
APW-08-WG-2025 0625		NPW	57.20	6/25/25	1355	3	X	X
APW-07-WG-2025 0625		NPW	58.18	6/25/25	1455	3	X	X
APW-10S-WG-2025 0625		NPW	57.90	6/25/25	1620	3	X	X
APW-10D-WG-2025 0625		NPW	93.93	6/25/25	1725	3	X	X
APW-06S-WG-2025 0624		NPW	59.65	6/24/25	1543	3	X	X
APW-06D-WG-2025 0624		NPW	151.44	6/24/25	1710	3	X	X
APW-05R-WG-2025 06		NPW	57.30	6/26/25	1045	3	X	X
APW-09-WG-2025 0625		NPW	58.10	6/25/25	0945	3	X	X
APW-02-WG-2025 0626		NPW	53.15	6/26/25	0930	3	X	X

Remarks	Sample # (lab only)
	01
	02
	03
	05
	06
	07
	08
	09
	10

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist	
COC Seal Present/Intact:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
COC Signed/Accurate:	<input type="checkbox"/> Y <input type="checkbox"/> N
Bottles arrive intact:	<input type="checkbox"/> Y <input type="checkbox"/> N
Correct bottles used:	<input type="checkbox"/> Y <input type="checkbox"/> N
Sufficient volume sent:	<input type="checkbox"/> Y <input type="checkbox"/> N
If Applicable	
VOA Zero Headspace:	<input type="checkbox"/> Y <input type="checkbox"/> N
Preservation Correct/Checked:	<input type="checkbox"/> Y <input type="checkbox"/> N
RAD Screen <0.5 mR/hr:	<input type="checkbox"/> Y <input type="checkbox"/> N

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Relinquished by: (Signature)  
**Emma Portell**

Date: **6/26/25**  
 Time: **1430**

Received by: (Signature)  
**Tom Wilson**

Trip Blank Received: Yes/No   
 HCL / MeOH  
 TBR

Relinquished by: (Signature)  
**Tom Wilson**

Date:  
 Time:

Received by: (Signature)

Temp: °C  
 Bottles Received: **45**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:  
 Time:

Received for lab by: (Signature)  
**Chadwick**

Date: **06-27-25**  
 Time: **0900**


Hold:  
 Condition: **NCF / OK**

Company Name/Address:  
**ERM - St. Louis, MO**  
 1968 Craig Road, Suite 100  
 Saint Louis, MO 63146

Billing Information:  
**Accounts Payable Dept.**  
 1701 Golf Road, Suite 1-1000  
 Rolling Meadows, IL 60008-4242

Pres Chk	22	22																		
----------	----	----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Chain of Custody Page 2 of 2



**MT JULIET, TN**  
 12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Report to:  
**Randy Homburg 314-682-3980**

Email To:  
 Randy.Homburg@erm.com; Tim.Wilson@erm.co

Project Description:  
**Grand Tower Energy Center Groundwater 2Q25**

City/State Collected: **Grand Tower, IL**

Please Circle:  
 PT MT **CT** ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #  
**0599247**

Lab Project #  
**ERMSCMO-0599247**

Collected by (print):  
**Emma Portelli**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Emma Portelli**

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day **X** STD TAT

Quote #  
**STD TAT**

Immediately Packed on Ice N \_\_\_ Y **X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	RA-226 1L-HDPE-Add HNO3	RA-228 1L-HDPE-Add HNO3												
APW-01R-WG-2025 0625	Grab	NPW	53.90	6/25/25	1110	3	X	X												
APW-04-WG-2025 0625		NPW	55.39	6/25/25	0815	3	X	X												
EB-01-WG-2025 0624		NPW	NA	6/24/25	1345	3	X	X												
DUP-01-WG-2025 0624		NPW		6/26/25	0001	3	X	X												
DUP-02-WG-2025 0625		NPW		6/25/25	0002	3	X	X												

SDG #	61875653
Table #	
Acctnum: ERMSCMO	
Template: T243472	
Prelogin: P1145310	
PM: 206 - Jeff Carr	
PB:	
Shipped Via: FedEX Ground	
Remarks	Sample # (lab only)
	11
	12
	13
	14
	15

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking #

Sample Receipt Checklist	
COC Seal Present/Intact: <b>NP</b>	Y ___ N
COC Signed/Accurate:	Y ___ N
Bottles arrive intact:	Y ___ N
Correct bottles used:	Y ___ N
Sufficient volume sent:	Y ___ N
If Applicable	
VOA Zero HeadSpace:	Y ___ N
Preservation Correct/Checked:	Y ___ N
RAD Screen <0.5 mR/hr:	Y ___ N

Relinquished by: (Signature)  
**Emma Portelli**

Date: **6/26/25**

Time: **1430**

Received by: (Signature)  
**Tim**

Trip Blank Received: Yes/No  
 HCL/ MeOH  
 TBR

Relinquished by: (Signature)  
**[Signature]**

Date:

Time:

Received by: (Signature)

Temp: °C Bottles Received: **45**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
**[Signature]**

Date: **6/27/25** Time: **1900**

Hold: Condition: NCF / OK

Multiple Parcel Form

L#                      U4873853

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
4257 0933 7555	TUA9	0.5	0.4	0.9	Yes / No / <del>Not Present</del>
4257 0933 7506	TUA9	0.8	0.4	1.2	Yes / No / <del>Not Present</del>
4257 0933 7103	TUA9	4.9	0.4	5.3	Yes / No / <del>Not Present</del>
4257 0933 7577	TUA9	2.5	0.4	2.9	Yes / No / <del>Not Present</del>
4257 0933 7599	TUA9	1.6	0.4	2.0	Yes / No / <del>Not Present</del>
4257 0933 7588	TUA9	3.1	0.4	3.5	Yes / No / <del>Not Present</del>
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

CRoberts

Name

06-27-25

Date

APPENDIX E FOURTH QUARTER 2024 RADIOLOGICAL  
LABORATORY ANALYTICAL REPORT

**ERM - St. Louis, MO**

Sample Delivery Group: L1873864  
Samples Received: 06/27/2025  
Project Number: 0599247  
Description: Grand Tower Energy Center Groundwater 2Q25 Sampling  
Report To: Randy Homburg  
1968 Craig Road, Suite 100  
Saint Louis, MO 63146

Entire Report Reviewed By:



Jason Romer  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

**Pace Analytical National**

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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<sup>1</sup> Cp
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<sup>3</sup> Ss
<sup>4</sup> Cn
<sup>5</sup> Sr
<sup>6</sup> Qc
<sup>7</sup> Gl
<sup>8</sup> Al
<sup>9</sup> Sc

# SAMPLE SUMMARY

APW-03-WG-20250625 L1873864-01

Collected by Emma Portell  
 Collected date/time 06/25/25 12:20  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/05/25 23:04	07/05/25 23:04	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	10	07/05/25 23:17	07/05/25 23:17	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:31	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2549037	1	07/01/25 13:40	07/02/25 01:32	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:15	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 11:50	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:24	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:04	JDB	Mt. Juliet, TN

- 1  
Cp
- 2  
Tc
- 3  
Ss
- 4  
Cn
- 5  
Sr
- 6  
Qc
- 7  
Gl
- 8  
Al
- 9  
Sc

APW-08-WG-20250625 L1873864-02

Collected by Emma Portell  
 Collected date/time 06/25/25 13:55  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/05/25 23:30	07/05/25 23:30	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:33	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:36	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:25	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 11:51	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:27	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:08	JDB	Mt. Juliet, TN

APW-07-WG-20250625 L1873864-03

Collected by Emma Portell  
 Collected date/time 06/25/25 14:55  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/05/25 23:43	07/05/25 23:43	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:36	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:43	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:28	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 11:53	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:30	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:11	JDB	Mt. Juliet, TN

APW-10S-WG-20250625 L1873864-04

Collected by Emma Portell  
 Collected date/time 06/25/25 17:25  
 Received date/time 06/27/25 09:00

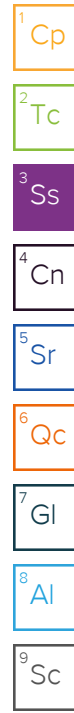
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 00:34	07/06/25 00:34	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:39	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:46	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:31	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 11:55	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:33	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:14	JDB	Mt. Juliet, TN

# SAMPLE SUMMARY

## APW-10D-WG-20250625 L1873864-05

Collected by Emma Portell  
 Collected date/time 06/25/25 16:20  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 01:00	07/06/25 01:00	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:46	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:48	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:34	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:00	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:42	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:17	JDB	Mt. Juliet, TN



## APW-06S-WG-20250624 L1873864-06

Collected by Emma Portell  
 Collected date/time 06/24/25 15:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 01:13	07/06/25 01:13	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	5	07/06/25 01:26	07/06/25 01:26	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:49	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:51	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:42	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:02	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:46	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:20	JDB	Mt. Juliet, TN

## APW-06D-WG-20250624 L1873864-07

Collected by Emma Portell  
 Collected date/time 06/24/25 17:10  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 01:38	07/06/25 01:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	5	07/06/25 01:51	07/06/25 01:51	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:51	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:53	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:44	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:03	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:49	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:23	JDB	Mt. Juliet, TN

## APW-05R-WG-20250626 L1873864-08

Collected by Emma Portell  
 Collected date/time 06/26/25 10:45  
 Received date/time 06/27/25 09:00

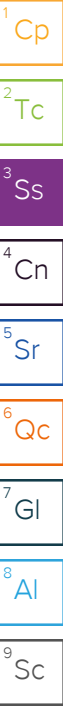
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 02:04	07/06/25 02:04	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	5	07/06/25 02:17	07/06/25 02:17	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552994	1	07/05/25 17:40	07/05/25 17:40	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:54	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:56	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:47	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:05	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:52	JPD	Mt. Juliet, TN

# SAMPLE SUMMARY

APW-05R-WG-20250626 L1873864-08

Collected by Emma Portell  
 Collected date/time 06/26/25 10:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:26	JDB	Mt. Juliet, TN



APW-09-WG-20250625 L1873864-09

Collected by Emma Portell  
 Collected date/time 06/25/25 09:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 02:56	07/06/25 02:56	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:56	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 03:58	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:50	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:07	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:55	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:29	JDB	Mt. Juliet, TN

APW-02-WG-20250626 L1873864-10

Collected by Emma Portell  
 Collected date/time 06/25/25 09:30  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2550382	1	07/01/25 14:18	07/02/25 11:12	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 03:21	07/06/25 03:21	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	10	07/06/25 03:34	07/06/25 03:34	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 11:59	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 04:00	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:53	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:08	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 12:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 15:32	JDB	Mt. Juliet, TN

APW-01R-WG-20250625 L1873864-11

Collected by Emma Portell  
 Collected date/time 06/25/25 11:10  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2550382	1	07/01/25 14:18	07/02/25 11:12	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 03:47	07/06/25 03:47	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 12:01	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 04:03	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:55	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:10	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 13:01	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 16:02	JDB	Mt. Juliet, TN

APW-04-WG-20250625 L1873864-12

Collected by Emma Portell  
 Collected date/time 06/25/25 08:15  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2550382	1	07/01/25 14:18	07/02/25 11:12	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 04:00	07/06/25 04:00	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN

# SAMPLE SUMMARY

## APW-04-WG-20250625 L1873864-12

Collected by Emma Portell  
 Collected date/time 06/25/25 08:15  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 12:05	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 04:05	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 20:58	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:12	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 13:04	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 16:05	JDB	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## EB-01-WG-20250624 L1873864-13

Collected by Emma Portell  
 Collected date/time 06/24/25 13:45  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549522	1	07/01/25 07:27	07/01/25 10:29	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 04:26	07/06/25 04:26	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552999	1	07/05/25 19:20	07/05/25 19:20	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 12:11	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 04:13	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 21:01	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:13	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 13:07	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 16:08	JDB	Mt. Juliet, TN

## DUP-01-WG-20250626 L1873864-14

Collected by Emma Portell  
 Collected date/time 06/26/25 00:01  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2550382	1	07/01/25 14:18	07/02/25 11:12	BDC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	1	07/06/25 04:38	07/06/25 04:38	DLH	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548117	5	07/06/25 04:51	07/06/25 04:51	DLH	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 12:26	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 04:16	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 21:04	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 12:15	MAP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 13:10	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 16:11	JDB	Mt. Juliet, TN

## DUP-02-WG-20250625 L1873864-15

Collected by Emma Portell  
 Collected date/time 06/25/25 00:02  
 Received date/time 06/27/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG2549523	1	06/30/25 16:08	06/30/25 16:53	AMG	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2548798	1	07/08/25 14:39	07/08/25 14:39	ZSA	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2552995	1	07/05/25 19:00	07/05/25 19:00	KRB	Mt. Juliet, TN
Mercury by Method 7470A	WG2548580	1	06/30/25 16:03	07/02/25 12:28	NDL	Mt. Juliet, TN
Mercury by Method 7470A	WG2548583	1	06/29/25 17:34	07/01/25 04:18	NDL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551106	1	07/08/25 10:58	07/08/25 21:06	BAG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2551209	1	07/07/25 08:53	07/08/25 14:44	NMM	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551122	1	07/08/25 11:03	07/26/25 13:33	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2551282	1	07/07/25 08:50	07/31/25 16:15	JDB	Mt. Juliet, TN

# CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

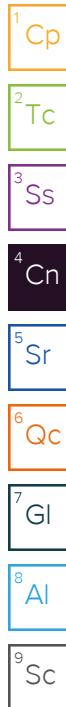


Jason Romer  
Project Manager

## Sample Delivery Group (SDG) Narrative

Analysis was filtered in the laboratory.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
<a href="#">L1873864-01</a>	<a href="#">APW-03-WG-20250625</a>	6020B, 6010D
<a href="#">L1873864-02</a>	<a href="#">APW-08-WG-20250625</a>	6020B, 6010D, 7470A
<a href="#">L1873864-03</a>	<a href="#">APW-07-WG-20250625</a>	6020B, 6010D, 7470A
<a href="#">L1873864-04</a>	<a href="#">APW-10S-WG-20250625</a>	6010D, 6020B, 7470A
<a href="#">L1873864-05</a>	<a href="#">APW-10D-WG-20250625</a>	6020B, 7470A, 6010D
<a href="#">L1873864-06</a>	<a href="#">APW-06S-WG-20250624</a>	6010D, 6020B, 7470A
<a href="#">L1873864-07</a>	<a href="#">APW-06D-WG-20250624</a>	6010D, 6020B, 7470A
<a href="#">L1873864-08</a>	<a href="#">APW-05R-WG-20250626</a>	7470A, 6020B, 6010D
<a href="#">L1873864-09</a>	<a href="#">APW-09-WG-20250625</a>	6020B, 7470A, 6010D
<a href="#">L1873864-10</a>	<a href="#">APW-02-WG-20250626</a>	6020B, 7470A, 6010D
<a href="#">L1873864-11</a>	<a href="#">APW-01R-WG-20250625</a>	6010D, 6020B, 7470A
<a href="#">L1873864-12</a>	<a href="#">APW-04-WG-20250625</a>	7470A, 6010D, 6020B
<a href="#">L1873864-13</a>	<a href="#">EB-01-WG-20250624</a>	6020B, 6010D, 7470A
<a href="#">L1873864-14</a>	<a href="#">DUP-01-WG-20250626</a>	6010D, 6020B, 7470A
<a href="#">L1873864-15</a>	<a href="#">DUP-02-WG-20250625</a>	6020B, 7470A, 6010D
<a href="#">R4242258-3</a>		6010D



Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	536		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	6.54		1.00	1	07/05/2025 23:04	<a href="#">WG2548117</a>
Fluoride	0.263		0.150	1	07/05/2025 23:04	<a href="#">WG2548117</a>
Sulfate	261		50.0	10	07/05/2025 23:17	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.11	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-01 WG2552995: 8.11 at 22.7C

Mercury by Method 7470A

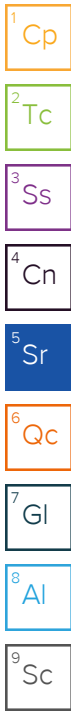
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:31	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/02/2025 01:32	<a href="#">WG2549037</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	4.52		0.200	1	07/08/2025 11:50	<a href="#">WG2551209</a>
Boron,Dissolved	4.49		0.200	1	07/08/2025 20:15	<a href="#">WG2551106</a>
Calcium	116		1.00	1	07/08/2025 11:50	<a href="#">WG2551209</a>
Calcium,Dissolved	115	<u>V</u>	1.00	1	07/08/2025 20:15	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Barium	0.107		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Barium,Dissolved	0.0973		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Lithium	0.0290		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0314		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Molybdenum	0.0600		0.00500	1	07/31/2025 15:04	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.0580		0.00500	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:04	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:24	<a href="#">WG2551122</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	422		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	8.66		1.00	1	07/05/2025 23:30	<a href="#">WG2548117</a>
Fluoride	0.250		0.150	1	07/05/2025 23:30	<a href="#">WG2548117</a>
Sulfate	28.6		5.00	1	07/05/2025 23:30	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.63	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-02 WG2552995: 7.63 at 22.6C

Mercury by Method 7470A

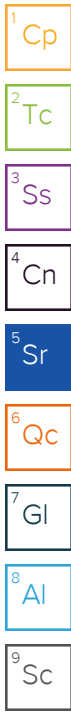
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:33	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:36	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	07/08/2025 11:51	<a href="#">WG2551209</a>
Boron,Dissolved	ND		0.200	1	07/08/2025 20:25	<a href="#">WG2551106</a>
Calcium	104		1.00	1	07/08/2025 11:51	<a href="#">WG2551209</a>
Calcium,Dissolved	104		1.00	1	07/08/2025 20:25	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Barium	0.206		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Barium,Dissolved	0.191		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Chromium	0.00204		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Lithium	0.0180		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0180		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Molybdenum	ND		0.00500	1	07/31/2025 15:08	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	ND		0.00500	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Selenium	0.0183		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Selenium,Dissolved	0.0169		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:08	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:27	<a href="#">WG2551122</a>

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	683		13.3	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	9.38		1.00	1	07/05/2025 23:43	<a href="#">WG2548117</a>
Fluoride	0.168		0.150	1	07/05/2025 23:43	<a href="#">WG2548117</a>
Sulfate	39.4		5.00	1	07/05/2025 23:43	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.22	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-03 WG2552995: 7.22 at 22.6C

Mercury by Method 7470A

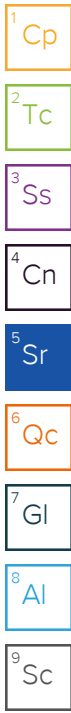
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:36	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:43	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	0.204		0.200	1	07/08/2025 11:53	<a href="#">WG2551209</a>
Boron,Dissolved	0.217		0.200	1	07/08/2025 20:28	<a href="#">WG2551106</a>
Calcium	199		1.00	1	07/08/2025 11:53	<a href="#">WG2551209</a>
Calcium,Dissolved	195		1.00	1	07/08/2025 20:28	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Barium	0.310		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Barium,Dissolved	0.255		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Lithium	0.0141		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0138		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Molybdenum	ND		0.00500	1	07/31/2025 15:11	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	ND		0.00500	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:11	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:30	<a href="#">WG2551122</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	770		20.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12.4		1.00	1	07/06/2025 00:34	<a href="#">WG2548117</a>
Fluoride	0.228		0.150	1	07/06/2025 00:34	<a href="#">WG2548117</a>
Sulfate	ND		5.00	1	07/06/2025 00:34	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.27	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-04 WG2552995: 7.27 at 22.8C

Mercury by Method 7470A

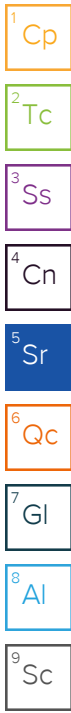
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:39	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:46	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	0.591		0.200	1	07/08/2025 11:55	<a href="#">WG2551209</a>
Boron,Dissolved	0.592		0.200	1	07/08/2025 20:31	<a href="#">WG2551106</a>
Calcium	163		1.00	1	07/08/2025 11:55	<a href="#">WG2551209</a>
Calcium,Dissolved	159		1.00	1	07/08/2025 20:31	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Arsenic	0.194		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Arsenic,Dissolved	0.0574		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Barium	0.596		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Barium,Dissolved	0.322		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Lithium	0.0278		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0288		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Molybdenum	ND		0.00500	1	07/31/2025 15:14	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	ND		0.00500	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:14	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:33	<a href="#">WG2551122</a>

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	463		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	16.2		1.00	1	07/06/2025 01:00	<a href="#">WG2548117</a>
Fluoride	ND		0.150	1	07/06/2025 01:00	<a href="#">WG2548117</a>
Sulfate	33.0		5.00	1	07/06/2025 01:00	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.65	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-05 WG2552995: 7.65 at 23C

Mercury by Method 7470A

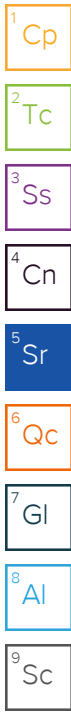
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:46	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:48	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	07/08/2025 12:00	<a href="#">WG2551209</a>
Boron,Dissolved	ND		0.200	1	07/08/2025 20:34	<a href="#">WG2551106</a>
Calcium	135		1.00	1	07/08/2025 12:00	<a href="#">WG2551209</a>
Calcium,Dissolved	129		1.00	1	07/08/2025 20:34	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Barium	0.344		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Barium,Dissolved	0.320		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Cobalt	0.00295		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Cobalt,Dissolved	0.00253		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Lithium	0.0144		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0149		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Molybdenum	ND		0.00500	1	07/31/2025 15:17	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	ND		0.00500	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:17	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:42	<a href="#">WG2551122</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	538		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	27.2		1.00	1	07/06/2025 01:13	<a href="#">WG2548117</a>
Fluoride	0.291		0.150	1	07/06/2025 01:13	<a href="#">WG2548117</a>
Sulfate	116		25.0	5	07/06/2025 01:26	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.58	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-06 WG2552995: 7.58 at 23.3C

Mercury by Method 7470A

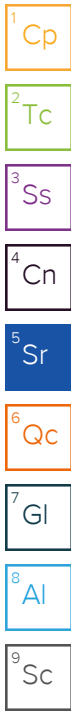
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:49	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:51	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	3.66		0.200	1	07/08/2025 12:02	<a href="#">WG2551209</a>
Boron,Dissolved	3.10		0.200	1	07/08/2025 20:42	<a href="#">WG2551106</a>
Calcium	109		1.00	1	07/08/2025 12:02	<a href="#">WG2551209</a>
Calcium,Dissolved	84.1		1.00	1	07/08/2025 20:42	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Barium	0.230		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Barium,Dissolved	0.120		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Lithium	0.0295		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0261		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Molybdenum	0.185		0.00500	1	07/31/2025 15:20	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.147		0.00500	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:20	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:46	<a href="#">WG2551122</a>

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	584		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	17.5		1.00	1	07/06/2025 01:38	<a href="#">WG2548117</a>
Fluoride	0.216		0.150	1	07/06/2025 01:38	<a href="#">WG2548117</a>
Sulfate	211		25.0	5	07/06/2025 01:51	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.72	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-07 WG2552995: 7.72 at 23.3C

Mercury by Method 7470A

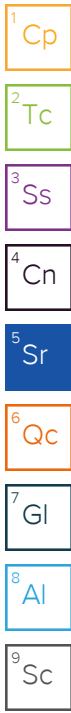
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:51	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:53	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	3.89		0.200	1	07/08/2025 12:03	<a href="#">WG2551209</a>
Boron,Dissolved	3.92		0.200	1	07/08/2025 20:44	<a href="#">WG2551106</a>
Calcium	119		1.00	1	07/08/2025 12:03	<a href="#">WG2551209</a>
Calcium,Dissolved	118		1.00	1	07/08/2025 20:44	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Arsenic	0.0109		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Arsenic,Dissolved	0.00520		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Barium	0.123		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Barium,Dissolved	0.107		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Lithium	0.0148		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0152		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Molybdenum	0.0609		0.00500	1	07/31/2025 15:23	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.0558		0.00500	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:23	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:49	<a href="#">WG2551122</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	504		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	24.1		1.00	1	07/06/2025 02:04	<a href="#">WG2548117</a>
Fluoride	0.369		0.150	1	07/06/2025 02:04	<a href="#">WG2548117</a>
Sulfate	135		25.0	5	07/06/2025 02:17	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.00	<u>T8</u>	1	07/05/2025 17:40	<a href="#">WG2552994</a>

Sample Narrative:

L1873864-08 WG2552994: 8 at 22.8C

Mercury by Method 7470A

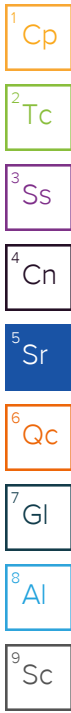
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:54	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:56	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	5.49		0.200	1	07/08/2025 12:05	<a href="#">WG2551209</a>
Boron,Dissolved	5.58		0.200	1	07/08/2025 20:47	<a href="#">WG2551106</a>
Calcium	104		1.00	1	07/08/2025 12:05	<a href="#">WG2551209</a>
Calcium,Dissolved	104		1.00	1	07/08/2025 20:47	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Arsenic	0.00223		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Barium	0.147		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Barium,Dissolved	0.102		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Lithium	0.0248		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0257		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Molybdenum	0.147		0.00500	1	07/31/2025 15:26	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.139		0.00500	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:26	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:52	<a href="#">WG2551122</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	378		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12.1		1.00	1	07/06/2025 02:56	<a href="#">WG2548117</a>
Fluoride	0.204		0.150	1	07/06/2025 02:56	<a href="#">WG2548117</a>
Sulfate	48.6		5.00	1	07/06/2025 02:56	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.91	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-09 WG2552995: 7.91 at 23.1C

Mercury by Method 7470A

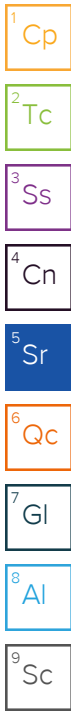
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:56	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 03:58	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	0.614		0.200	1	07/08/2025 12:07	<a href="#">WG2551209</a>
Boron,Dissolved	0.642		0.200	1	07/08/2025 20:50	<a href="#">WG2551106</a>
Calcium	91.9		1.00	1	07/08/2025 12:07	<a href="#">WG2551209</a>
Calcium,Dissolved	91.0		1.00	1	07/08/2025 20:50	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Arsenic	0.00266		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Arsenic,Dissolved	0.00233		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Barium	0.132		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Barium,Dissolved	0.101		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Lithium	0.0157		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0164		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Molybdenum	0.0336		0.00500	1	07/31/2025 15:29	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.0298		0.00500	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Selenium	0.0226		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Selenium,Dissolved	0.0227		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:29	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:55	<a href="#">WG2551122</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	801		13.3	1	07/02/2025 11:12	<a href="#">WG2550382</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	8.99		1.00	1	07/06/2025 03:21	<a href="#">WG2548117</a>
Fluoride	0.264		0.150	1	07/06/2025 03:21	<a href="#">WG2548117</a>
Sulfate	432		50.0	10	07/06/2025 03:34	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.41	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-10 WG2552995: 7.41 at 22.8C

Mercury by Method 7470A

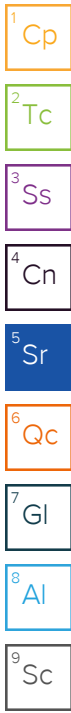
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 11:59	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 04:00	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	10.3		0.200	1	07/08/2025 12:08	<a href="#">WG2551209</a>
Boron,Dissolved	10.4		0.200	1	07/08/2025 20:53	<a href="#">WG2551106</a>
Calcium	185		1.00	1	07/08/2025 12:08	<a href="#">WG2551209</a>
Calcium,Dissolved	151		1.00	1	07/08/2025 20:53	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Arsenic	0.0284		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Arsenic,Dissolved	0.00214		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Barium	0.484		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Barium,Dissolved	0.127		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Cadmium	0.00104		0.00100	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Chromium	0.0361		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Cobalt	0.0117		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Lead	0.0323		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Lithium	0.0513		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0402		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Molybdenum	0.210		0.00500	1	07/31/2025 15:32	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.207		0.00500	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 15:32	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 12:58	<a href="#">WG2551122</a>

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	307		10.0	1	07/02/2025 11:12	<a href="#">WG2550382</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	1.10		1.00	1	07/06/2025 03:47	<a href="#">WG2548117</a>
Fluoride	0.159		0.150	1	07/06/2025 03:47	<a href="#">WG2548117</a>
Sulfate	25.1		5.00	1	07/06/2025 03:47	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.18	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-11 WG2552995: 7.18 at 22.6C

Mercury by Method 7470A

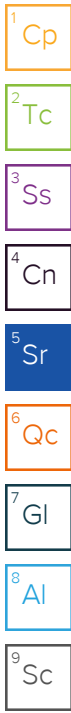
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 12:01	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 04:03	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	07/08/2025 12:10	<a href="#">WG2551209</a>
Boron,Dissolved	ND		0.200	1	07/08/2025 20:55	<a href="#">WG2551106</a>
Calcium	69.4		1.00	1	07/08/2025 12:10	<a href="#">WG2551209</a>
Calcium,Dissolved	68.8		1.00	1	07/08/2025 20:55	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Barium	0.148		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Barium,Dissolved	0.135		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Chromium	0.00299		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Lithium	0.0124		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0121		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Molybdenum	ND		0.00500	1	07/31/2025 16:02	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	ND		0.00500	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Selenium	0.00316		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Selenium,Dissolved	0.00289		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 16:02	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 13:01	<a href="#">WG2551122</a>

- <sup>1</sup>Cp
- <sup>2</sup>Tc
- <sup>3</sup>Ss
- <sup>4</sup>Cn
- <sup>5</sup>Sr
- <sup>6</sup>Qc
- <sup>7</sup>Gl
- <sup>8</sup>Al
- <sup>9</sup>Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	445		10.0	1	07/02/2025 11:12	<a href="#">WG2550382</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	11.1		1.00	1	07/06/2025 04:00	<a href="#">WG2548117</a>
Fluoride	0.167		0.150	1	07/06/2025 04:00	<a href="#">WG2548117</a>
Sulfate	68.4		5.00	1	07/06/2025 04:00	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.83	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-12 WG2552995: 7.83 at 22.7C

Mercury by Method 7470A

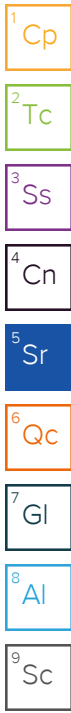
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 12:05	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 04:05	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	1.14		0.200	1	07/08/2025 12:12	<a href="#">WG2551209</a>
Boron,Dissolved	1.16		0.200	1	07/08/2025 20:58	<a href="#">WG2551106</a>
Calcium	99.8		1.00	1	07/08/2025 12:12	<a href="#">WG2551209</a>
Calcium,Dissolved	102		1.00	1	07/08/2025 20:58	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Barium	0.133		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Barium,Dissolved	0.127		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Lithium	0.0269		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0263		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Molybdenum	0.0535		0.00500	1	07/31/2025 16:05	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.0499		0.00500	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Selenium	0.0165		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Selenium,Dissolved	0.0152		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 16:05	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 13:04	<a href="#">WG2551122</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	ND		10.0	1	07/01/2025 10:29	<a href="#">WG2549522</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	ND		1.00	1	07/06/2025 04:26	<a href="#">WG2548117</a>
Fluoride	ND		0.150	1	07/06/2025 04:26	<a href="#">WG2548117</a>
Sulfate	ND		5.00	1	07/06/2025 04:26	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	5.61	<u>T8</u>	1	07/05/2025 19:20	<a href="#">WG2552999</a>

Sample Narrative:

L1873864-13 WG2552999: 5.61 at 22.5C

Mercury by Method 7470A

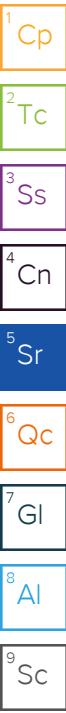
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 12:11	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 04:13	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	ND		0.200	1	07/08/2025 12:13	<a href="#">WG2551209</a>
Boron,Dissolved	ND		0.200	1	07/08/2025 21:01	<a href="#">WG2551106</a>
Calcium	ND		1.00	1	07/08/2025 12:13	<a href="#">WG2551209</a>
Calcium,Dissolved	ND		1.00	1	07/08/2025 21:01	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Arsenic	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Barium	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Barium,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Lithium	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Lithium,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Molybdenum	ND		0.00500	1	07/31/2025 16:08	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	ND		0.00500	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 16:08	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 13:07	<a href="#">WG2551122</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	509		10.0	1	07/02/2025 11:12	<a href="#">WG2550382</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	23.6		1.00	1	07/06/2025 04:38	<a href="#">WG2548117</a>
Fluoride	0.355		0.150	1	07/06/2025 04:38	<a href="#">WG2548117</a>
Sulfate	133		25.0	5	07/06/2025 04:51	<a href="#">WG2548117</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.82	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-14 WG2552995: 7.82 at 22.5C

Mercury by Method 7470A

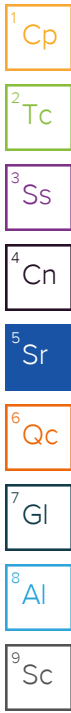
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 12:26	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 04:16	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	5.53		0.200	1	07/08/2025 12:15	<a href="#">WG2551209</a>
Boron,Dissolved	5.47		0.200	1	07/08/2025 21:04	<a href="#">WG2551106</a>
Calcium	103		1.00	1	07/08/2025 12:15	<a href="#">WG2551209</a>
Calcium,Dissolved	102		1.00	1	07/08/2025 21:04	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Arsenic	0.00227		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Arsenic,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Barium	0.146		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Barium,Dissolved	0.103		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Lithium	0.0258		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0263		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Molybdenum	0.146		0.00500	1	07/31/2025 16:11	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.140		0.00500	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Selenium	ND		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Selenium,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 16:11	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 13:10	<a href="#">WG2551122</a>

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Solids	393		10.0	1	06/30/2025 16:53	<a href="#">WG2549523</a>

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	12.2		1.00	1	07/08/2025 14:39	<a href="#">WG2548798</a>
Fluoride	0.208		0.150	1	07/08/2025 14:39	<a href="#">WG2548798</a>
Sulfate	49.4		5.00	1	07/08/2025 14:39	<a href="#">WG2548798</a>

Wet Chemistry by Method 9040C

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.90	<u>T8</u>	1	07/05/2025 19:00	<a href="#">WG2552995</a>

Sample Narrative:

L1873864-15 WG2552995: 7.9 at 22.5C

Mercury by Method 7470A

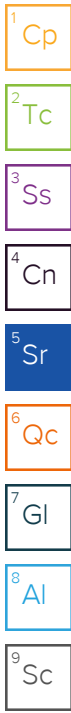
Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	07/02/2025 12:28	<a href="#">WG2548580</a>
Mercury,Dissolved	ND		0.000200	1	07/01/2025 04:18	<a href="#">WG2548583</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Boron	0.608		0.200	1	07/08/2025 14:44	<a href="#">WG2551209</a>
Boron,Dissolved	0.624		0.200	1	07/08/2025 21:06	<a href="#">WG2551106</a>
Calcium	92.0		1.00	1	07/08/2025 14:44	<a href="#">WG2551209</a>
Calcium,Dissolved	89.4		1.00	1	07/08/2025 21:06	<a href="#">WG2551106</a>

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Antimony	ND		0.00400	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Antimony,Dissolved	ND		0.00400	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Arsenic	0.00240		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Arsenic,Dissolved	0.00221		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Barium	0.117		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Barium,Dissolved	0.101		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Beryllium	ND		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Beryllium,Dissolved	ND		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Cadmium	ND		0.00100	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Cadmium,Dissolved	ND		0.00100	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Chromium	ND		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Chromium,Dissolved	ND		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Cobalt	ND		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Cobalt,Dissolved	ND		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Lead	ND		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Lead,Dissolved	ND		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Lithium	0.0160		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Lithium,Dissolved	0.0163		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Molybdenum	0.0314		0.00500	1	07/31/2025 16:15	<a href="#">WG2551282</a>



Metals (ICPMS) by Method 6020B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Molybdenum,Dissolved	0.0301		0.00500	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Selenium	0.0225		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Selenium,Dissolved	0.0223		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>
Thallium	ND		0.00200	1	07/31/2025 16:15	<a href="#">WG2551282</a>
Thallium,Dissolved	ND		0.00200	1	07/26/2025 13:33	<a href="#">WG2551122</a>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Method Blank (MB)

(MB) R4240088-1 07/01/25 10:29

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10.0	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1873425-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1873425-12 07/01/25 10:29 • (DUP) R4240088-3 07/01/25 10:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1820	1870	1	2.84		10

L1873893-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1873893-06 07/01/25 10:29 • (DUP) R4240088-4 07/01/25 10:29

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	ND	ND	1	200	P1	10

Laboratory Control Sample (LCS)

(LCS) R4240088-2 07/01/25 10:29

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800	8780	99.8	90.0-110	

Method Blank (MB)

(MB) R4239488-1 06/30/25 16:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10.0	10.0

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1873864-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1873864-15 06/30/25 16:53 • (DUP) R4239488-3 06/30/25 16:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	393	395	1	0.508		10

L1874350-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1874350-19 06/30/25 16:53 • (DUP) R4239488-4 06/30/25 16:53

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	747	752	1	0.711		10

Laboratory Control Sample (LCS)

(LCS) R4239488-2 06/30/25 16:53

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800	8910	101	90.0-110	

Method Blank (MB)

(MB) R4240565-1 07/02/25 11:12

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Dissolved Solids	U		10.0	10.0

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1873171-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1873171-05 07/02/25 11:12 • (DUP) R4240565-3 07/03/25 15:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	1770	1800	1	1.96		10

L1874345-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1874345-10 07/02/25 11:12 • (DUP) R4240565-4 07/03/25 15:14

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Dissolved Solids	3720	3750	1	0.938		10

Laboratory Control Sample (LCS)

(LCS) R4240565-2 07/02/25 11:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Dissolved Solids	8800	8740	99.3	90.0-110	

Method Blank (MB)

(MB) R4241404-1 07/05/25 19:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1873559-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1873559-03 07/05/25 20:55 • (DUP) R4241404-3 07/05/25 21:08

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	12.8	12.8	1	0.174		15
Fluoride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.879		15

L1873559-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1873559-04 07/05/25 21:47 • (DUP) R4241404-6 07/05/25 22:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	26.2	26.7	1	1.64		15
Fluoride	ND	ND	1	10.5		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R4241404-2 07/05/25 20:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Chloride	40.0	39.0	97.5	80.0-120	
Fluoride	8.00	7.96	99.5	80.0-120	
Sulfate	40.0	40.1	100	80.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1873559-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873559-03 07/05/25 20:55 • (MS) R4241404-4 07/05/25 21:21 • (MSD) R4241404-5 07/05/25 21:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	12.8	50.8	50.6	95.1	94.5	1	80.0-120			0.495	15
Fluoride	8.00	ND	8.13	8.06	102	101	1	80.0-120			0.790	15
Sulfate	40.0	ND	42.3	42.1	99.9	99.4	1	80.0-120			0.482	15

L1873559-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1873559-04 07/05/25 21:47 • (MS) R4241404-7 07/05/25 22:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	26.2	59.6	83.5	1	80.0-120	
Fluoride	8.00	ND	7.73	95.5	1	80.0-120	
Sulfate	40.0	ND	37.5	93.7	1	80.0-120	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Method Blank (MB)

(MB) R4242530-1 07/08/25 13:24

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Chloride	U		0.547	1.00
Fluoride	U		0.0761	0.150
Sulfate	U		0.637	5.00

L1873950-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1873950-02 07/08/25 15:04 • (DUP) R4242530-3 07/08/25 15:17

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	25.2	24.9	1	0.957		15
Fluoride	0.700	0.668	1	4.71		15
Sulfate	6.12	6.18	1	1.04		15

L1874000-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1874000-01 07/08/25 20:31 • (DUP) R4242530-6 07/08/25 20:43

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/l	mg/l		%		%
Chloride	12.1	11.7	1	3.97		15
Fluoride	0.361	0.357	1	0.892		15
Sulfate	8.44	8.06	1	4.53		15

Laboratory Control Sample (LCS)

(LCS) R4242530-2 07/08/25 13:36

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Chloride	40.0	38.8	96.9	80.0-120	
Fluoride	8.00	7.86	98.2	80.0-120	
Sulfate	40.0	39.8	99.4	80.0-120	

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1873950-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873950-02 07/08/25 15:04 • (MS) R4242530-4 07/08/25 15:29 • (MSD) R4242530-5 07/08/25 15:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	40.0	25.2	58.7	57.2	83.8	80.1	1	80.0-120			2.56	15
Fluoride	8.00	0.700	8.44	8.16	96.8	93.3	1	80.0-120			3.34	15
Sulfate	40.0	6.12	44.6	43.2	96.1	92.8	1	80.0-120			3.03	15

L1874000-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1874000-01 07/08/25 20:31 • (MS) R4242530-7 07/08/25 20:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	40.0	12.1	46.3	85.5	1	80.0-120	
Fluoride	8.00	0.361	7.80	93.0	1	80.0-120	
Sulfate	40.0	8.44	44.3	89.7	1	80.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1872900-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1872900-09 07/05/25 17:40 • (DUP) R4240934-2 07/05/25 17:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.37	7.39	1	0.271		1

Sample Narrative:

OS: 7.37 at 23.4C  
 DUP: 7.39 at 23.4C

L1873717-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1873717-01 07/05/25 17:40 • (DUP) R4240934-3 07/05/25 17:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.32	7.35	1	0.409		1

Sample Narrative:

OS: 7.32 at 22.9C  
 DUP: 7.35 at 22.8C

Laboratory Control Sample (LCS)

(LCS) R4240934-1 07/05/25 17:40

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
su	su		%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10 at 23.4C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1873794-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1873794-01 07/05/25 19:00 • (DUP) R4240938-2 07/05/25 19:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	8.33	8.34	1	0.120		1

Sample Narrative:

OS: 8.33 at 22.4C  
DUP: 8.34 at 22.4C

L1874000-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1874000-01 07/05/25 19:00 • (DUP) R4240938-3 07/05/25 19:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
su	su			%		%
pH	7.76	7.75	1	0.129		1

Sample Narrative:

OS: 7.76 at 22.7C  
DUP: 7.75 at 22.7C

Laboratory Control Sample (LCS)

(LCS) R4240938-1 07/05/25 19:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
su	su		%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 22.8C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

L1873660-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1873660-01 07/05/25 19:20 • (DUP) R4240943-2 07/05/25 19:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.98	7.98	1	0.000		1

Sample Narrative:

OS: 7.98 at 23C

DUP: 7.98 at 23C

L1874178-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1874178-26 07/05/25 19:20 • (DUP) R4240943-3 07/05/25 19:20

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	6.91	6.87	1	0.581		1

Sample Narrative:

OS: 6.91 at 22.1C

DUP: 6.87 at 21.9C

Laboratory Control Sample (LCS)

(LCS) R4240943-1 07/05/25 19:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	9.98	99.8	99.0-101	

Sample Narrative:

LCS: 9.98 at 22.7C

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Method Blank (MB)

(MB) R4239464-1 07/02/25 11:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.0000700	0.000200

Laboratory Control Sample (LCS)

(LCS) R4239464-2 07/02/25 11:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00300	100	80.0-120	

L1873426-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873426-06 07/02/25 11:21 • (MS) R4239464-4 07/02/25 11:26 • (MSD) R4239464-5 07/02/25 11:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	ND	0.00224	0.00226	70.9	71.6	1	75.0-125	<u>J6</u>	<u>J6</u>	0.875	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4238590-1 07/01/25 03:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.0000700	0.000200

Laboratory Control Sample (LCS)

(LCS) R4238590-2 07/01/25 03:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00262	87.3	80.0-120	

L1873893-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873893-03 07/01/25 03:25 • (MS) R4238590-4 07/01/25 03:30 • (MSD) R4238590-5 07/01/25 03:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	ND	0.00251	0.00252	83.6	84.2	1	75.0-125			0.682	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4239244-1 07/02/25 01:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.0000700	0.000200

Laboratory Control Sample (LCS)

(LCS) R4239244-2 07/02/25 01:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00300	99.9	80.0-120	

L1873426-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873426-04 07/02/25 01:16 • (MS) R4239244-4 07/02/25 01:21 • (MSD) R4239244-5 07/02/25 01:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	ND	0.00298	0.00285	99.3	95.0	1	75.0-125			4.40	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4242258-1 07/08/25 20:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Boron,Dissolved	U		0.0233	0.200
Calcium,Dissolved	U		0.153	1.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4242258-2 07/08/25 20:12

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Boron,Dissolved	1.00	1.02	102	80.0-120	
Calcium,Dissolved	10.0	10.4	104	80.0-120	

4 Cn

5 Sr

6 Qc

L1873864-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873864-01 07/08/25 20:15 • (MS) R4242258-4 07/08/25 20:20 • (MSD) R4242258-5 07/08/25 20:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron,Dissolved	1.00	4.49	5.29	5.29	79.3	79.2	1	75.0-125			0.0189	20
Calcium,Dissolved	10.0	115	120	120	57.0	56.1	1	75.0-125	V	V	0.0790	20

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4242031-1 07/08/25 11:39

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Boron	U		0.0233	0.200
Calcium	U		0.153	1.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4242031-2 07/08/25 11:41

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Boron	1.00	1.01	101	80.0-120	
Calcium	10.0	10.4	104	80.0-120	

4 Cn

5 Sr

6 Qc

L1874003-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1874003-02 07/08/25 11:43 • (MS) R4242031-4 07/08/25 11:46 • (MSD) R4242031-5 07/08/25 11:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Boron	1.00	ND	1.02	1.02	102	102	1	75.0-125			0.351	20
Calcium	10.0	ND	10.5	10.5	105	105	1	75.0-125			0.0946	20

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4249949-1 07/26/25 12:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony,Dissolved	U		0.000310	0.00400
Arsenic,Dissolved	U		0.000120	0.00200
Barium,Dissolved	U		0.000500	0.00200
Beryllium,Dissolved	U		0.000200	0.00200
Cadmium,Dissolved	U		0.000120	0.00100
Chromium,Dissolved	U		0.000900	0.00200
Cobalt,Dissolved	U		0.000100	0.00200
Lead,Dissolved	U		0.000500	0.00200
Lithium,Dissolved	U		0.000600	0.00200
Molybdenum,Dissolved	U		0.000500	0.00500
Selenium,Dissolved	U		0.000250	0.00200
Thallium,Dissolved	U		0.000130	0.00200

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4249949-2 07/26/25 12:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony,Dissolved	0.0500	0.0513	103	80.0-120	
Arsenic,Dissolved	0.0500	0.0515	103	80.0-120	
Barium,Dissolved	0.0500	0.0509	102	80.0-120	
Beryllium,Dissolved	0.0500	0.0492	98.5	80.0-120	
Cadmium,Dissolved	0.0500	0.0554	111	80.0-120	
Chromium,Dissolved	0.0500	0.0527	105	80.0-120	
Cobalt,Dissolved	0.0500	0.0528	106	80.0-120	
Lead,Dissolved	0.0500	0.0549	110	80.0-120	
Lithium,Dissolved	0.0500	0.0514	103	80.0-120	
Molybdenum,Dissolved	0.0500	0.0514	103	80.0-120	
Selenium,Dissolved	0.0500	0.0496	99.2	80.0-120	
Thallium,Dissolved	0.0500	0.0539	108	80.0-120	

L1874569-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1874569-01 07/26/25 12:11 • (MS) R4249949-4 07/26/25 12:18 • (MSD) R4249949-5 07/26/25 12:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony,Dissolved	0.0500	ND	0.0519	0.0520	104	104	1	75.0-125			0.106	20
Arsenic,Dissolved	0.0500	0.00298	0.0528	0.0530	99.6	100	1	75.0-125			0.343	20
Barium,Dissolved	0.0500	0.0681	0.119	0.118	101	100	1	75.0-125			0.384	20

L1874569-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1874569-01 07/26/25 12:11 • (MS) R4249949-4 07/26/25 12:18 • (MSD) R4249949-5 07/26/25 12:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium,Dissolved	0.0500	ND	0.0470	0.0470	94.1	94.1	1	75.0-125			0.00317	20
Cadmium,Dissolved	0.0500	ND	0.0536	0.0544	107	109	1	75.0-125			1.40	20
Chromium,Dissolved	0.0500	ND	0.0508	0.0511	102	102	1	75.0-125			0.523	20
Cobalt,Dissolved	0.0500	ND	0.0504	0.0513	101	103	1	75.0-125			1.83	20
Lead,Dissolved	0.0500	ND	0.0516	0.0530	103	106	1	75.0-125			2.54	20
Lithium,Dissolved	0.0500	0.0103	0.0579	0.0578	95.2	95.0	1	75.0-125			0.155	20
Molybdenum,Dissolved	0.0500	0.00805	0.0591	0.0603	102	104	1	75.0-125			2.00	20
Selenium,Dissolved	0.0500	ND	0.0489	0.0512	97.9	102	1	75.0-125			4.59	20
Thallium,Dissolved	0.0500	ND	0.0508	0.0528	102	106	1	75.0-125			3.86	20

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Method Blank (MB)

(MB) R4252210-1 07/31/25 14:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Antimony	U		0.000310	0.00400
Arsenic	U		0.000120	0.00200
Barium	0.00132	U	0.000500	0.00200
Beryllium	U		0.000200	0.00200
Cadmium	U		0.000120	0.00100
Chromium	U		0.000900	0.00200
Cobalt	U		0.000100	0.00200
Lead	0.00145	U	0.000500	0.00200
Lithium	U		0.000600	0.00200
Molybdenum	U		0.000500	0.00500
Selenium	U		0.000250	0.00200
Thallium	U		0.000130	0.00200

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc

Laboratory Control Sample (LCS)

(LCS) R4252210-2 07/31/25 14:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	0.0500	0.0486	97.1	80.0-120	
Arsenic	0.0500	0.0500	100	80.0-120	
Barium	0.0500	0.0491	98.2	80.0-120	
Beryllium	0.0500	0.0455	91.0	80.0-120	
Cadmium	0.0500	0.0566	113	80.0-120	
Chromium	0.0500	0.0525	105	80.0-120	
Cobalt	0.0500	0.0523	105	80.0-120	
Lead	0.0500	0.0524	105	80.0-120	
Lithium	0.0500	0.0463	92.6	80.0-120	
Molybdenum	0.0500	0.0505	101	80.0-120	
Selenium	0.0500	0.0514	103	80.0-120	
Thallium	0.0500	0.0533	107	80.0-120	

L1873826-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873826-21 07/31/25 14:08 • (MS) R4252210-4 07/31/25 14:14 • (MSD) R4252210-5 07/31/25 14:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	0.0500	ND	0.0531	0.0504	106	101	1	75.0-125			5.34	20
Arsenic	0.0500	ND	0.0548	0.0538	107	105	1	75.0-125			1.94	20
Barium	0.0500	0.0166	0.0669	0.0650	101	96.7	1	75.0-125			2.99	20

L1873826-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1873826-21 07/31/25 14:08 • (MS) R4252210-4 07/31/25 14:14 • (MSD) R4252210-5 07/31/25 14:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Beryllium	0.0500	ND	0.0391	0.0397	78.3	79.3	1	75.0-125			1.37	20
Cadmium	0.0500	ND	0.0572	0.0571	114	114	1	75.0-125			0.201	20
Chromium	0.0500	ND	0.0548	0.0530	107	104	1	75.0-125			3.23	20
Cobalt	0.0500	0.0379	0.0923	0.0909	109	106	1	75.0-125			1.52	20
Lead	0.0500	0.00220	0.0498	0.0514	95.3	98.4	1	75.0-125			3.05	20
Lithium	0.0500		0.407	0.405	0.000	0.000	1	75.0-125	√	√	0.636	20
Molybdenum	0.0500	ND	0.0553	0.0522	111	104	1	75.0-125			5.65	20
Selenium	0.0500	ND	0.0550	0.0545	110	109	1	75.0-125			0.901	20
Thallium	0.0500	ND	0.0498	0.0501	99.7	100	1	75.0-125			0.496	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

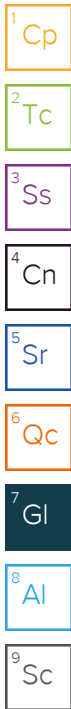
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.



# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl


<sup>8</sup> Al

<sup>9</sup> Sc

Company Name/Address:  
**ERM - St. Louis, MO**  
 1968 Craig Road, Suite 100  
 Saint Louis, MO 63146

Billing Information:  
 Accounts Payable Dept.  
 1701 Golf Road, Suite 1-1000  
 Rolling Meadows, IL 60008-4242

Analysis / Container / Preservative  
 Pres Chk  
 12

Chain of Custody Page 1 of 2  
  
 PEOPLE ADVANCING SCIENCE

Report to:  
**Randy Homburg 314-682-3980**

Email To:  
 Randy.Homburg@erm.com; Tim.Wilson@erm.co

**MT JULIET, TN**  
 12065 Lebanon Rd Mount Juliet, TN 37127  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:  
<https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Project Description:  
**Grand Tower Energy Center Groundwater 2Q25**

City/State Collected: **Grand Tower, IL**

Please Circle:  
 PT MT **CT** ET

Regulatory Program(DOD,RCRA,DW,etc):

Client Project #  
**0599247**

Lab Project #  
**ERMSCMO-0599247**

SDG # **L1673800**  
**F187**

Collected by (print):  
**Emma Portell**

Site/Facility ID #

P.O. #

Collected by (signature):  
**Emma Portell**

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day **X** STD TAT

Quote #  
 Date Results Needed  
**STD TAT**

Immediately Packed on Ice N \_\_\_ Y **X**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

APW-03-WG-2025 0625	Grab	GW	54.70	6/25/25	1220	5
APW-08-WG-2025 0625		GW	57.20	6/25/25	1355	5
APW-07-WG-2025 0625		GW	58.18	6/25/25	1455	5
APW-10S-WG-2025 0625		GW	57.90	6/25/25	1620	5
APW-10D-WG-2025 0625		GW	93.93	6/23/25	1725	5
APW-06S-WG-2025 0624		GW	59.63	6/24/25	1545	5
APW-06D-WG-2025 0624		GW	151.44	6/24/25	1710	5
APW-05R-WG-2025 0626		GW	57.80	6/26/25	1045	5
APW-09-WG-2025 0625		GW	58.10	6/25/25	0945	5
APW-02-WG-2025 0626		GW	53.15	6/26/25	0930	5

Alnions 125mlHDPE-NoPres	Dissolved Metals 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Total Metals 250mlHDPE-HNO3	pH 125mlHDPE-NoPres
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X
X	X	X	X	X

Acctnum: **ERMSCMO**  
 Template: **T243415**  
 Prelogin: **P1145307**  
 PM: 206 - Jeff Carr  
 PB:

Shipped Via: **FedEX Ground**

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_  
 Samples returned via:  
 UPS \_\_\_ FedEx \_\_\_ Courier \_\_\_\_\_  
 Tracking # \_\_\_\_\_

Sample Receipt Checklist  
 COC Seal Present/Intact:  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
 If Applicable  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N  
 RAD Screen <0.5 mR/hr:  Y  N

Relinquished by: (Signature)  
**Emma Portell**

Date: **6/26/25**

Time: **1430**

Received by: (Signature)  
**Tim RSCMO**

Trip Blank Received: Yes/No  
 HCL/ MeOH  
 TBR

Relinquished by: (Signature)  
**Tim**

Date:

Time:

Received by: (Signature)

Temp: °C  
**74**

Bottles Received:  
 If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)  
**C. Robinson**


Date: **6/27/25**

Time: **1910**  
 Hold:  
 Condition:  
 NCF / (OK)

Company Name/Address:  
**ERM - St. Louis, MO**  
 1968 Craig Road, Suite 100  
 Saint Louis, MO 63146

Billing Information:  
**Accounts Payable Dept.**  
 1701 Golf Road, Suite 1-1000  
 Rolling Meadows, IL 60008-4242

Pres Chk  
 Analysis / Container / Preservative  
 12

Chain of Custody Page 2 of 2  
  
 PEOPLE ADVANCING SCIENCE

Report to:  
**Randy Homburg 314-682-3980**

Email To:  
**Randy.Homburg@erm.com; Tim.Wilson@erm.co**

Project Description:  
**Grand Tower Energy Center Groundwater 2Q25**

City/State Collected: **Grand Tower, IL**

Please Circle:  
 PT MT **CT** ET

**MT JULIET, TN**  
 12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

Regulatory Program(DOD,RCRA,DW,etc):

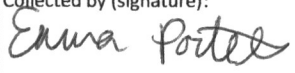
Client Project #  
**0599247**

Lab Project #  
**ERMSCMO-0599247**

Collected by (print):  
**Emma Portell**

Site/Facility ID #

P.O. #

Collected by (signature):  


**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day **X** STD TAT

Quote #  
 Date Results Needed  
**STD TAT**

No. of Cntrs

Sample ID

Comp/Grab

Matrix \*

Depth

Date

Time

Anions 125mlHDPE-NoPres  
 Dissolved Metals 250mlHDPE-NoPres  
 TDS 1L-HDPE NoPres  
 Total Metals 250mlHDPE-HNO3  
 pH 125mlHDPE-NoPres

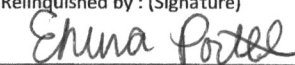
SDG # **U1873864**  
 Table #  
 Acctnum: **ERMSCMO**  
 Template: **T243415**  
 Prelogin: **P1145307**  
 PM: **206 - Jeff Carr**  
 PB:  
 Shipped Via: **FedEX Ground**  
 Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Anions 125mlHDPE-NoPres	Dissolved Metals 250mlHDPE-NoPres	TDS 1L-HDPE NoPres	Total Metals 250mlHDPE-HNO3	pH 125mlHDPE-NoPres						
APW-01R-WG-20250625	Grab	GW	53.90	6/25/25	1110	5	X	X	X	X	X						
APW-04-WG-20250625		GW	55.39	6/25/25	0815	5	X	X	X	X	X						
EB-01-WG-20250624		GW	NA	6/24/25	1345	45	X	X	X	X	X						
DUP-01-WG-20250626		GW		6/26/25	0001	5	X	X	X	X	X						
DUP-02-WG-20250625		GW		6/25/25	0002	5	X	X	X	X	X						

\* Matrix:  
 SS - Soil AIR - Air F - Filter  
 GW - Groundwater B - Bioassay  
 WW - WasteWater  
 DW - Drinking Water  
 OT - Other


Remarks:  
 Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier  
 Tracking #

Sample Receipt Checklist  
 COC Seal Present/Intact:  NP Y N  
 COC Signed/Accurate: Y N  
 Bottles arrive intact: Y N  
 Correct bottles used: Y N  
 Sufficient volume sent: Y N  
 If Applicable  
 VOA Zero Headspace: Y N  
 Preservation Correct/Checked: Y N  
 RAD Screen <0.5 mR/hr: Y N

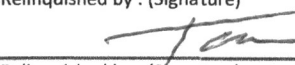
Relinquished by: (Signature)  


Date:  
**6/26/25**

Time:  
**1430**

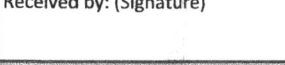
Received by: (Signature)  


Trip Blank Received: Yes/No  
 HCL/MeOH  
 TBR

Relinquished by: (Signature)  


Date:

Time:

Received for lab by: (Signature)  


Temp: °C  
**062725**  
 Date: **6/25**  
 Time: **0900**

Bottles Received: **74**  
 If preservation required by Login: Date/Time  
 Hold:  
 Condition:  
 NCF / OK

