2025 Annual Water Quality Report and Engineering Inspection

Permit #70-SDP-09-91P

Central Iowa Power Cooperative

December 3, 2025

→ The Power of Commitment

2025 Annual Water Quality Report and Engineering Inspection

CIPCO CCR Monofill
Permit #70-SDP-09-91C

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Michael J. Alowitz, P.E.

12/3/2025
Date

License Number: 18160

My license renewal date is: December 31, 2026

Pages or sheets covered by this seal: Entire Document

Executive summary

Period of Report Coverage

This Annual Water Quality Report (AWQR) presents the data collected in October 2025 for the Central Iowa Power Cooperative (CIPCO) Coal Combustion Residue (CCR) Monofill. For most analytes, the report includes data from October 2016 onward when analysis was shifted to total metals instead of dissolved metals. Greater historical data for chloride and sulfate is included because these analytes were not previously filtered.

Report Priority

The data presented in the 2025 CIPCO AWQR is consistent with past data. Elevated concentrations remain primarily in one area identified by monitoring wells MW-15 and MW-17. The Iowa Department of Natural Resources (IDNR) previously extended the post-closure period for this monofill. Changes to the monitoring network to remove some monitoring wells and analytes are proposed in this AWQR.

Site Status and Applicable Rules

The CIPCO CCR Monofill ceased receiving CCR in 2014 and closure cap construction was completed in 2015. Closure Permit #70-SDP-09-91C (Closure Permit) was issued February 1, 2016. The CCR Monofill is permitted and closed under 567 Iowa Administrative Code, Chapter 103. Figure 2 - Site Plan and Monitoring Network shows the status of the site monitoring network and topographic conditions.

The IDNR extended the post-closure period 5 years to February 2031 through a revised closure permit issued February 20, 2025.

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Acronyms/Abbreviations

AWQR	Annual Water Quality Report
CIPCO	Central Iowa Power Cooperative (CIPCO
CCR	Coal Combustion Residue
HA	Lifetime Health Advisory
HIR	Hydrogeological Investigation Report
HMSP	Hydrologic Monitoring System Plan
GWQA	Groundwater Quality Assessment
IAC	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
MCL	EPA Maximum Contaminant Level
ORP	Oxidation Reduction Potential
SDWR	Secondary Drinking Water Regulations
SWS	Statewide Standard
U	Used in Table 8 to denote concentrations that are reported as non-detect. The associated value represents half the reporting limit.
UCL	Upgradient Control Limit
USEPA	United States Environmental Protection Agency

1. Introduction

This Annual Water Quality Report (AWQR) and Engineering Inspection was prepared by GHD Services inc. (GHD) on behalf of Central Iowa Power Cooperative (CIPCO) for the closed Fair Station Coal Combustion Residue (CCR) Monofill (Monofill) in Muscatine County, Iowa. The Monofill ceased receiving CCR in 2014 and closure cap construction was completed in 2015. Closure Permit #70-SDP-09-91C (Closure Permit) was issued February 1, 2016.

1.1 Background

The Monofill received CCR from the Fair Station power plant in Muscatine, Iowa from 1974 through November 7, 2014. No material other than CCR and other approved materials from demolition of Fair Station have been disposed in the Monofill. Prior to 1974, the Monofill property was used for agricultural activities. Cap construction was completed in 2014 and 2015. Final seeding of the cover was completed in September 2015. The Construction Summary Report was submitted to the Iowa Department of Natural Resources (IDNR) on December 22, 2015, and the Closure Permit was issued on February 1, 2016. The closure activities did not require modification of the groundwater monitoring network.

The local geology consists of sands, silts, and clays similar to what would be expected from alluvial deposition. The 1994 Hydrogeological Investigation Report (HIR) and Hydrologic Monitoring System Plan (HMSP) concluded these deposits did not appear to be great enough in thickness or extent to form an alluvial aquifer. Over the majority of the Monofill, Pennsylvanian shale is found at depths of 15 feet below ground surface or less, underlain by Devonian limestone. On the eastern, higher elevation portion of the Monofill, depth to bedrock is greater than 15 feet.

The Monofill is located adjacent to the Pine Creek flood plain. Pine Creek enters the Mississippi River approximately ½ mile southwest of the Monofill. Water table groundwater flow is generally toward Pine Creek. The Devonian aquifer flow is generally directed west/southwest, toward Pine Creek and the Mississippi River. The location of the Monofill is shown in Figure 1.

A groundwater quality assessment (GWQA) was initiated at the Monofill site in 2012 and completed in 2013. As an outgrowth of those activities, new monitoring wells MW-17, MW-19, and MW-20 were integrated into the HMSP and the analyte list was expanded at the direction of the IDNR, as reflected in this AWQR. Monitoring well MW-19 has since been abandoned.

The December 9, 2016, AWQR for 2016 data was the last report to include dissolved (filtered) metals analysis for groundwater samples. Following an IDNR comment letter dated May 17, 2017, CIPCO applied for a variance to switch to unfiltered samples. The December 9, 2016, AWQR included a side-by-side comparison of filtered and unfiltered samples collected generally through low-flow techniques. The variance request also sought to reduce the analyte list. The variance was approved in a letter dated July 24, 2017, with the exception that arsenic and cobalt analyses remain required. The approval eliminates barium, beryllium, copper, lead, selenium, and zinc. The variance was incorporated into Revision 1 of the closure permit also issued July 24, 2017.

Due to the change to sampling total metals (unfiltered metals), it was necessary to establish new baseline concentrations for metals. Four sampling events: October 2016, August 2017, October 2017, and April 2018 formed the new baseline concentrations. Historical data reflecting total metals are no longer reported; however, the data are available in the December 9, 2016 AWQR.

The original 10-year post closure period was anticipated to end in 2026. The closure period was extended 5 years to February 1, 2031 by the IDNR in response to the 2024 AWQR based on groundwater monitoring results. The revised permit was issued February 20, 2025.

1.2 Monitoring System

Groundwater samples are collected from three water table monitoring wells (upgradient well MW-11, and downgradient wells MW-2 and MW-6), and water table monitoring wells MW-4, MW-7, and MW-10 are used for elevation monitoring only. Groundwater samples are collected from seven uppermost aquifer wells (upgradient location MW-9 and downgradient locations MW-1, MW-3, MW-5, MW-15, MW-17, and MW-20). Surface water sampling was discontinued with issuance of the Closure Permit. Figure 2 shows the locations of monitoring wells and identifies upgradient locations. Table 1 and Table 2 present the monitoring program summary and implementation schedule, respectively. Table 4 presents the monitoring well maintenance and performance summary.

Based on past groundwater analytical data, monitoring well MW-1, although hydraulically upgradient, is evaluated as a downgradient well due to apparent impacts observed. All other wells are characterized as upgradient or downgradient consistent with site data.

1.3 Sample Collection

Sampling for the 2025 AWQR was completed in October 2025. Groundwater samples were collected with low-flow pneumatic bladder pumps with dedicated tubing and dedicated (disposable) bladders except for monitoring well MW-9.

A flow-through monitoring cell was used prior to sample collection to measure pH, conductivity, temperature, dissolved oxygen, turbidity, and oxidation reduction potential (ORP). The sampling method for monitoring well MW-9 remained a disposable polyethylene bailer without a flow-cell.

1.4 Analytical Parameters

Groundwater samples collected during the sampling event were analyzed for arsenic, cobalt, iron, magnesium, manganese, chloride, and sulfate as required in Paragraph 567-103.1(4)d of the Iowa Administrative Code (IAC). A variance granted in July 2017 eliminated the requirement for barium, beryllium, copper, lead, selenium, and zinc analyses based on historical data. Boron, lithium, molybdenum, sodium, and strontium are also analyzed per the amended HMSP. Laboratory analysis was conducted by Eurofins Environmental Testing North Central, LLC. (Eruofins) of Cedar Falls, Iowa. Eurofins provided prepared sample containers for the monitoring event.

2. Groundwater Flow Conditions

2.1 Horizontal Groundwater Flow

Static water levels were measured at each of the monitoring wells included in the monitoring system in October 2025. Table 13 presents groundwater elevations measured in wells during the October 2025 monitoring event. A water table contour map (Figure 3) was prepared using water level measurements from the October 2025 monitoring event. During this monitoring event, the inferred groundwater flow direction at the water table was toward the southwest. Figure 4 shows the potentiometric surface of the uppermost aquifer based on measurements from the October 2025 monitoring event. The apparent direction of flow in the uppermost aquifer is generally to the southwest. The flow of groundwater in both the water table and uppermost aquifer at the Monofill is toward Pine Creek located west of the Monofill.

2.2 Vertical Hydraulic Gradients

Water levels measured in monitoring well clusters MW-2/MW-3, MW-6/MW-5, MW-10/MW-9, and MW-7/MW-20 during the 2025 monitoring event were used to calculate vertical hydraulic gradients for the Monofill. The vertical hydraulic gradients were calculated by the following equation:

$$\frac{\text{Water Elevation in Deep Well} - \text{Water Elevation in Shallow Well}}{\text{Elevation of Middle of Saturated Zone of Shallow Well Screen} - \text{Elevation of Middle of Saturated Zone of Deep Well Screen}}$$

The calculated vertical hydraulic gradients are presented in Table 14. The results are similar to historical results for each well pair. The MW-7/MW-20 well pair historically exhibits a small gradient and may be upward or downward-directed. The downward-directed flow reported at monitoring wells MW-10/MW-9 remains the largest gradient on-site; monitoring well MW-9 is the deepest well on-site.

3. Analytical Results

Groundwater sample collection records for October 2025 are provided in Appendix A and the associated laboratory analytical reports are provided in Appendix B. Table 8 present current and historical analytical data (with total metals) collected at the Monofill for sampling locations and analytes in the current monitoring plan. Historical data with total metals was last presented in the December 9, 2016, AWQR. Appendix C includes graphs of concentration versus time for all analytes and in each monitored unit (water table and uppermost aquifer). Table 10 summarizes the annual laboratory results and basic trend analysis.

3.1 Data Analysis

Sample results are compared to multiple reference concentrations: (1) published concentration standards, (2) baseline concentrations, (3) upgradient control limits (UCLs) and, (4) where applicable, a 2-year average concentration. All comparisons are shown in the Analytical Data Summary in Appendix C. Comparison to published standards and UCLs are included graphically in Appendix C.

3.1.1 Published Standards

To evaluate the status of water quality at the Monofill, a comparison was made between the sample result and federal drinking water quality standards, as required by Paragraph 567-103.1(4)d of the IAC. Sample results were compared to the United States Environmental Protection Agency (USEPA) Maximum Contaminant Level (MCL), Lifetime Health Advisory (HA) Level, or Secondary Drinking Water Regulations (SDWR) guidelines as presented in the 2018 Edition of the Drinking Water Standards and Health Advisories, dated March 2018 (2018 Standards) (USEPA, 2018). The following definitions of the various standards are adapted from the 2018 Standards document:

- ***MCL*** - The highest level for a contaminant that is allowed in drinking water. MCLs are enforceable standards. There is an MCL for arsenic.
- ***HA*** - An estimate of acceptable drinking water levels for a chemical substance based on health effects information. The lifetime HA is the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure. The lifetime HA is based on exposure of a 70-kilogram (kg) adult consuming 2 liters of water per day. An HA is not a legally enforceable federal standard, but serves as technical guidance to assist federal, state, and local officials. There is an HA for boron, manganese, molybdenum, and strontium.
- ***SDWR*** - Non-enforceable federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water. An SDWR guideline exists for chloride, iron, manganese, and sulfate.

Iowa Statewide Standards (SWSs) are used for comparison of cobalt and lithium results since no MCL, HA, or SDWR guideline has been established for cobalt and lithium. Under 40 Code of Federal Regulations (CFR) Part 257.95(h)(2), federal standards for lithium (0.04 milligrams per liter [mg/L]) and cobalt (0.006 mg/L) were established in 2018 for monitoring CCR sites where the federal coal ash rule is applicable. These federal standards are higher than the SWS of 0.014 mg/L and 0.003 mg/L for lithium and cobalt, respectively, in protected groundwater sources.

3.1.2 Baseline Concentrations

Baseline concentrations for total metals were established at all wells based on sample events in October 2016, August 2017, October 2017, and April 2018. For sulfate and chloride, historical values are used for baseline concentrations since these samples are not filtered and there was no difference with historical samples. Baseline values are included in Table 8.

3.1.3 UCLs

A UCL was calculated for each upgradient sampling location as the average of all previous sampling results for each analyte in each upgradient well plus two standard deviations. The calculated UCLs are presented in Tables 5 and 8. Non-detect results were conservatively represented by one-half the reporting limit for calculation of the UCL. Table 6 presents exceedances of a control limit not immediately preceded by an exceedance, where control limits are identified as published standards. Table 8 provides all associated data and Table 9 presents a graphical summary of UCL and/or published standard exceedances in the last 5 years.

3.1.4 Two-Year Average Concentration

For magnesium and sodium, no MCL, HA, SDWR guideline, or SWS is established. In order to evaluate the status of water quality at the Monofill for these compounds (magnesium and sodium), a comparison was made between the sample result and the 2-year average concentration for that parameter in each well, in accordance with Paragraph 567-103.1(4)d of the IAC. Non-detect results were represented by the reporting limit for calculating the 2-year average concentration.

3.2 Reporting Limits

In the previous year's results, there were several constituents that had elevated reporting limits at certain wells, such as arsenic (MW-15), lithium (MW-6), and molybdenum (MW-2). In these cases, the results are graphed in the usual manner at one-half the reporting limit; however, they can appear on the graphs as spikes in concentration. The 2025 data have reporting limits consistent with historical data.

3.3 Evaluation of Analytical and Field Data

3.3.1 Published Standards

No reported concentrations exceed an MCL.

HAs were exceeded for boron (five locations), manganese (three locations), and molybdenum (three locations).

SDWR guidelines were exceeded for iron (seven locations), manganese (seven locations), and sulfate (three locations).

SWSs were exceeded for cobalt (one location) and lithium (eight locations).

Figure 8 identifies the monitoring points where published standards were exceeded. Table 7 presents a summary of ongoing and newly identified exceedances of published standards

3.3.2 Baseline Concentrations

October 2025 sample results exceeded baseline concentrations for the following analytes:

– Arsenic at one location.
– Boron at seven locations.
– Chloride at five locations.
– Iron at three locations.
– Magnesium at four locations.
– Manganese at two locations.
– Molybdenum at two locations.
– Sodium at five locations.
– Strontium at five locations.
– Sulfate at two locations.

3.3.3 Trend Review

Trends can be observed in the charts in Appendix C and are summarized in Table 10. The trends are based on visual observation of charts in Appendix C. Most analytes and wells saw no trend. Monitoring wells MW-15 and MW-17 show the largest impacts in groundwater. Monitoring well MW-15 is at the toe of the perimeter berm around the monofill and monitoring well MW-17 is located downgradient, adjacent to Pine Creek.

Sulfate and chloride are often used as indicators for CCR impact on groundwater. The long-term overall trends for sulfate and chloride at the CIPCO CCR Monofill show the positive effects of closure. Monitoring well MW-2, for example, is hydraulically upgradient of the Monofill but is treated as a downgradient well due to past apparent leachate impacts. No increasing trends were noted at monitoring well MW-2 and sulfate at monitoring well MW-2 has been below the SDWR for the four sampling events since 2022.

Sulfate concentrations at uppermost aquifer monitoring wells MW-15 and MW-17 remain approximately an order of magnitude higher than the other monitoring locations. The 2025 data show monitoring well MW-17 sulfate concentration is consistent with last year's elevated concentration over recent years. The 2025 sulfate result for monitoring well MW-15 is an increase over recent years and ends a 2-year downward trend in concentration. There is no trend in monitoring well MW-15 sulfate results and an increasing trend in monitoring well MW-17. The last time the sulfate SDWR guideline was exceeded at monitoring well MW-5 was 2013; the last time at monitoring well MW-6 was 2015. Sulfate last exceeded the SDWR guideline at monitoring well MW-2 in 2021. In 2025, sulfate exceeded the SDWR at monitoring well MW-1 for the first time since 2021. For the 2025 results, the only downgradient monitoring wells exceeding their sulfate baseline concentrations were monitoring wells MW-15 and MW-17.

Chloride concentrations exhibit a long-term trend of decreasing concentrations in the Water Table and select wells in the Uppermost Aquifer. The 2025 data showed slight decreases in chloride across the monitoring network except for monitoring wells MW-3, MW-9, and MW-20 where there were slight increases in chloride concentration, due to higher reporting limits; however, all results are similar to previous years. The maximum chloride concentration reported, 17.7 mg/L at monitoring well MW-15, is less than 10 percent of the SDWR value of 250 mg/L.

Cobalt results are variable. At uppermost aquifer monitoring well MW-6, all results are above the SWS of 0.0028 mg/L, but multi-year trends of decreasing and increasing results have been observed since 2016. The October 2025 cobalt concentration in uppermost aquifer well MW-3 decreased to concentrations consistent with previous years, excluding 2024 when cobalt levels at monitoring well MW-3 exceeded the SWS for the first time since 2017.

Manganese at monitoring well MW-6 remains significantly elevated relative to all other results at the site. This was previously identified as a local geologic impact and unlikely related to the presence of the Monofill. Manganese results at uppermost aquifer well MW-3 tend to match the pattern observed in cobalt results at this well. With the

October 2025 cobalt result decreasing back to 2023 levels after the 2024 result spike being the highest recorded since 2017.

A historically increasing trend in molybdenum was evident at monitoring well MW-17 through 2021 but the last 4 years of data have been decreasing. Monitoring well MW-15 molybdenum concentration exhibits an increasing trend.

Sodium results show a long-term increasing trend at monitoring well MW-17. While the 2025 sodium concentration is lower than the 2024 concentration, the 2025 results are still greater than the 2023 results, continuing the overall increase. In monitoring well MW-15, the results have generally increased over the last few years but 2025 results did not return above 2023 levels after the 2024 decrease. Generally, a flat or decreasing trend in sodium concentrations are observed in other areas of the Site.

4. Summary and Recommendations

No MCLs were exceeded in the October 2025 groundwater monitoring event. HAs (boron, manganese, and molybdenum), SDWR guidelines (iron, manganese, and sulfate), and the SWSs (cobalt and lithium) were exceeded at locations consistent with historical results.

Overall, groundwater monitoring results are in-line with expectations and decreasing trends are seen in sulfate data, while chloride data are consistent with historical trends. Overall, decreasing concentration trends are observed more than increasing trends but for most locations and analytes, no clear trend was noted.

The groundwater monitoring network remains appropriate for assessing the Monofill's impact on groundwater. Overall, the Monofill does not appear to be impacting groundwater at concentrations of concern relative to drinking water exposure. The standards used to evaluate the Monofill's impact on groundwater are drinking water standards. Although HAs and SDWR guidelines are exceeded, the Monofill does not pose a significant risk because no drinking water receptors are located immediately downgradient of the Monofill, local users of groundwater have deep wells, and the extent of impacts appears to be limited.

Routine annual monitoring at the Monofill should continue in October 2026 with proposed changes noted below. Although surface water monitoring may be warranted in the future, at this time, it is not recommended to resume. Years of past surface water monitoring did not show an impact, and sulfate concentrations (the largest mass in terms of milligrams per liter and thus most likely to be observed at levels of impact) at monitoring well MW-17 remain within the range of historical results.

The following changes are proposed for the 2026 monitoring network following 10 years of post-closure groundwater monitoring.

– The water table aquifer is proposed for removal from the monitoring plan. This includes background monitoring well MW-11 and downgradient locations MW-2 and MW-6. The monitoring wells would not be abandoned and would be used for annual water level measurement. The water table shows significant improvement since closure. Currently exceedances of public standards across these wells include:
    - Boron at monitoring wells MW-2 and MW-6 and manganese and molybdenum at monitoring well MW-6 exceed an HA.
    - Cobalt at monitoring well MW-6 and lithium at monitoring well MW-2 exceed a SWS.
    - Iron at upgradient well MW-11 and MW-6; manganese at all three wells; and sulfate at MW-2 exceed an SDWR guideline.

    The only water table well in which arsenic has been reported in monitoring well MW-6 at concentrations less than half the MCL.
– Magnesium and sodium are proposed for removal from the analyte list for all wells. The data are fairly consistent and there are no standards for comparison. These data do not improve assessment of the site.

– Strontium is proposed for removal from the analyte list. The HA is 4 mg/L and the highest concentration detected across the ten monitoring wells in the network over twelve sample events since October 2016 is 0.899 or less than a quarter of the HA.

5. Inspections

CIPCO continued routine inspections of the Monofill since closure. Appendix D includes a summary of the 2025 inspection activities and corrective actions. Sam Honold of CIPCO routinely inspects the Monofill property. Michael Alowitz, P.E. completed a site visit and inspection on October 31, 2025.

Overall, the cap is well vegetated. The grass growth appeared complete with only a small area showing mower damage needing reseeding. Multiple mowing events were conducted during the year. Drainage structures appeared to be performing as designed. Minor woody vegetation was identified in rip rap channels but it appeared to be less than 1 year old based on size and the channels are routinely maintained.

Mr. Alowitz observed potential animal burrows on the very western edge of the Monofill at the tree line. These were not inhabited and did not appear to impact the cap. However, the potential presence of animal burrows in this area will continue to be a point of observation.

In 2022, a significant effort was completed by CIPCO to protect the Monofill berm along Pine Creek. Two areas of historical erosion were cleared, covered with flex-a-mat, and re-seeded. This area generally appeared to be protected with the flex-a-mat performing as expected.

The access gate was found locked and secure. There was no evidence of illicit dumping. Portion of the perimeter fence were impacted by fallen trees, but the overall site security appeared intact.

CIPCO will continue multiple site visits and inspections to support Monofill maintenance.

Tables

Table 1

Monitoring Program Summary
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CIPCO Fair Station CCR Monofill
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Monitoring Well	Formation	Current Monitoring Program	Change for next sampling event	Control Limit Exceedances	Total # of Samples in each monitoring program since January 1, 2018		
					Routine (Annual)	Supplemental	Remedial Action
MW-1	Uppermost Aquifer	Annual	No Change	Chloride, Iron, Lithium, Magnesium, Sulfate	8	0	0
MW-2	Water Table	Annual	No Change	Boron, Lithium, Sodium, Strontium, Sulfate	8	0	0
MW-3	Uppermost Aquifer	Annual	No Change	Boron, Sodium, Strontium	8	0	0
MW-5	Uppermost Aquifer	Annual	No Change	Boron, Chloride, Cobalt, Iron, Magnesium, Sodium, Sulfate	8	0	0
MW-6	Water Table	Annual	No Change	Arsenic, Boron, Chloride, Cobalt, Manganese, Molybdenum, Sodium, Strontium	8	0	0
MW-9	Uppermost Aquifer	Annual	No Change		8	0	0
MW-11	Water Table	Annual	No Change		8	0	0
MW-15	Uppermost Aquifer	Annual	No Change	Boron, Chloride, Lithium, Magnesium, Molybdenum, Sodium, Sulfate	8	0	0
MW-17	Uppermost Aquifer	Annual	No Change	Boron, Chloride, Iron, Lithium, Magnesium, Molybdenum, Sodium, Sulfate	8	0	0
MW-20	Uppermost Aquifer	Annual	No Change	Boron, Sodium	8	0	0
Other monitoring points							
MW-4	Water Table	Water Level	No Change	NA	0	0	0
MW-7	Water Table	Water Level	No Change	NA	0	0	0
MW-10	Water Table	Water Level	No Change	NA	0	0	0

Table 2

Monitoring Program Implementation Schedule
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Monitoring Well	Recent Sampling Dates and Constituents				Upcoming Sampling Dates and Constituents
					Annually
MW-1	Arsenic, cobalt, iron, magnesium, manganese, chloride, and sulfate as required in Paragraph 567—103.1(4)d of the Iowa Administrative Code (IAC). A variance granted in July 2017 eliminated the requirement to analyze for barium, beryllium, copper, lead, selenium, and zinc based on historic data. Boron, lithium, molybdenum, sodium, and strontium are also analyzed per the amended HMSP.				
MW-2					
MW-3					
MW-5					
MW-6					
MW-9					
MW-11					
MW-15					
MW-17					
MW-20					

Table 3

Monitoring Well Maintenance and Performance Revaluation Schedule
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This table is not applicable to the CIPCO Fair Station CCR Monofill

Table 4

Monitoring Well Maintenance and Performance Summary
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Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		
					10/10/2023	10/22/2024	10/16/2025
MW-1	588.13	571.51	36	Groundwater Level (ft)	25.41	24.66	22.42
				Groundwater Elevation (Ft MSL)	562.72	563.47	565.71
				Measured Well Depth (ft)			
				Submerged screen	N	N	N
MW-2	559.42	546.7	12.69	Groundwater Level (ft)	7.51	7.08	7.51
				Groundwater Elevation (Ft MSL)	551.91	552.34	551.91
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-3	559.17	512.69	46.41	Groundwater Level (ft)	9.44	9.30	9.46
				Groundwater Elevation (Ft MSL)	549.73	549.87	549.71
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-4	556.93	557.78	10.3	Groundwater Level (ft)	9.60	9.42	9.33
				Groundwater Elevation (Ft MSL)	547.33	547.51	547.6
				Measured Well Depth (ft)			
				Submerged screen	N	N	N
MW-5	555.54	527.24	28.3	Groundwater Level (ft)	6.80	6.52	6.01
				Groundwater Elevation (Ft MSL)	548.74	549.02	549.53
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-6	555.89	541.11	14.82	Groundwater Level (ft)	7.99	7.68	7.25
				Groundwater Elevation (Ft MSL)	547.9	548.21	548.64
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-7	555.55	548.78	17.99	Groundwater Level (ft)	3.03	3.37	2.43
				Groundwater Elevation (Ft MSL)	552.52	552.18	553.12
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-9	629.13	513.59	118.67	Groundwater Level (ft)	32.83	32.20	30.04
				Groundwater Elevation (Ft MSL)	596.30	596.93	599.09
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-10	629.39	597.45	32.25	Groundwater Level (ft)	23.21	22.21	19.53
				Groundwater Elevation (Ft MSL)	606.18	607.18	609.86
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-11	587.99	586.22	20.44	Groundwater Level (ft)	7.36	6.71	9.3
				Groundwater Elevation (Ft MSL)	580.63	581.28	578.69
				Measured Well Depth (ft)			
				Submerged screen	N	N	N
MW-15	558.66	539.50	29.16	Groundwater Level (ft)	12.55	12.40	12.51
				Groundwater Elevation (Ft MSL)	546.11	546.26	546.15
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-17	557.32	541.97	20.35	Groundwater Level (ft)	12.22	12.24	12.74
				Groundwater Elevation (Ft MSL)	545.1	545.08	544.58
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y
MW-20	558.92	524.52	44.4	Groundwater Level (ft)	5.92	5.50	4.62
				Groundwater Elevation (Ft MSL)	553.00	553.42	554.30
				Measured Well Depth (ft)			
				Submerged screen	Y	Y	Y

Table 5

Background Summary
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Interwell Background/Control Limit (MW-11 Water Table)

Constituent	Units	Samples	Detections	Background level	Statistical Test	Action Level	Source
Inorganics							
Arsenic (As)	mg/L	12	0	0.0016	M+/-2SD	0.01	MCL
Boron (Bo)	mg/L	12	1	0.151	M+/-2SD	6	HA
Chloride (Cl)	mg/L	44	40	12.9	M+/-2SD	250	SDWR
Cobalt (Co)	mg/L	12	5	0.001205	M+/-2SD	0.0028	SWS
Iron (Fe)	mg/L	12	11	0.93	M+/-2SD	0.3	SDWR
Lithium (Li)	mg/L	12	1	0.0074	M+/-2SD	0.014	SWS
Magnesium (Mg)	mg/L	12	12	53.6	M+/-2SD	NA	
Manganese (Mn)	mg/L	12	12	0.441	M+/-2SD	0.3, 0.05	HA, SDWR
Molybdenum (Mo)	mg/L	12	0	0.001	M+/-2SD	0.04	HA
Sodium (Na)	mg/L	12	12	14.5	M+/-2SD	NA	
Strontium (St)	mg/L	12	12	0.151	M+/-2SD	4	HA
Sulfate (SO4)	mg/L	31	30	134	M+/-2SD	250	SDWR

Interwell Background/Control Limit (MW-9 Uppermost Aquifer)

Constituent	Units	Samples	Detections	Background level	Statistical Test	Action Level	Source
Inorganics							
Arsenic (As)	mg/L	12	0	0.0016	M+/-2SD	0.01	MCL
Boron (Bo)	mg/L	12	9	0.433	M+/-2SD	6	HA
Chloride (Cl)	mg/L	42	8	5.9	M+/-2SD	250	SDWR
Cobalt (Co)	mg/L	12	3	0.001737	M+/-2SD	0.0028	SWS
Iron (Fe)	mg/L	12	2	0.59	M+/-2SD	0.3	SDWR
Lithium (Li)	mg/L	12	12	0.0490	M+/-2SD	0.014	SWS
Magnesium (Mg)	mg/L	12	12	35.0	M+/-2SD	NA	
Manganese (Mn)	mg/L	12	8	0.682	M+/-2SD	0.3, 0.05	HA, SDWR
Molybdenum (Mo)	mg/L	12	0	0.001	M+/-2SD	0.04	HA
Sodium (Na)	mg/L	12	12	14.3	M+/-2SD	NA	
Strontium (St)	mg/L	12	12	0.738	M+/-2SD	4	HA
Sulfate (SO4)	mg/L	31	29	36.5	M+/-2SD	250	SDWR

Table 6

Summary of Well/Detected Constituent Pairs With No Immediately Preceding Control Limit Exceedances
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

Well	Constituent	Units	Most recent result	Control Limit
MW-1	Sulfate	mg/L	304	250
MW-11	Iron	mg/L	0.625	0.3

Notes:
For this table, control limit identified as published standards.
MW-11 is a background location.

Table 7

Summary of Ongoing and Newly Identified Control Limit Exceedances
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

Well	Constituent	Units	Most recent result	Background/Baseline Standard	Action Level/ Statewide Standard
MW-1	Boron	mg/L	0.310	0.284	6
	Chloride	mg/L	6.59	6.6	250
	Cobalt	mg/L	0.000934	0.000946	0.0028
	Iron	mg/L	2.64	1.69	0.3
	Lithium	mg/L	0.0635	0.0667	0.014
	Magnesium	mg/L	80.1	81.2	NA
	Manganese	mg/L	0.293	0.296	0.3/0.05
	Strontium	mg/L	0.761	0.748	4
	Sulfate	mg/L	304	370	250
MW-2	Boron	mg/L	6.98	7.36	6
	Cobalt	mg/L	0.0005U	0.000315	0.0028
	Lithium	mg/L	0.0331	0.0516	0.014
	Magnesium	mg/L	30.2	30.1	NA
	Manganese	mg/L	0.0615	0.05661	0.3/0.05
	Strontium	mg/L	0.323	0.323	4
	Sulfate	mg/L	191	703	250
MW-3	Iron	mg/L	0.203	1.05	0.3
	Lithium	mg/L	0.0336	0.0391	0.014
	Magnesium	mg/L	20.4	22.9	NA
	Manganese	mg/L	0.563	1.599	0.3/0.05
	Sodium	mg/L	24.8	33.4	NA
	Strontium	mg/L	0.860	0.772	4
MW-5	Boron	mg/L	7.05	5.63	6
	Chloride	mg/L	15.3	13.7	250
	Cobalt	mg/L	0.00118	0.003063	0.0028
	Iron	mg/L	0.343	1.09	0.3
	Lithium	mg/L	0.0183	0.0264	0.014
	Manganese	mg/L	0.249	0.592	0.3/0.05
	Strontium	mg/L	0.326	0.318	4
MW-6	Boron	mg/L	8.60	6.31	6
	Chloride	mg/L	14.2	13.2	250
	Colbalt	mg/L	0.00385	0.00481	0.0028
	Iron	mg/L	1.98	0.981	0.3
	Lithium	mg/L	0.01U	0.0055	0.014
	Manganese	mg/L	7.46	8.29	0.3/0.05
	Molybdenmun	mg/L	0.0775	0.0679	0.04
MW-9	Boron	mg/L	0.401	0.159	6
	Lithium	mg/L	0.0408	0.045	0.014
	Magnesium	mg/L	31.1	30.9	NA
	Sodium	mg/L	13.2	9.2	NA
MW-11	Chloride	mg/L	10.6	8.6	250
	Iron	mg/L	0.625	0.556	0.3
	Magnesium	mg/L	46.7	48	NA
	Manganese	mg/L	0.202	0.302	0.3/0.05
	Sodium	mg/L	13.1	12.0	NA
	Strontium	mg/L	0.132	0.134	4

Table 7

Summary of Ongoing and Newly Identified Control Limit Exceedances
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

Well	Constituent	Units	Most recent result	Background/Baseline Standard	Action Level/ Statewide Standard
MW-15	Boron	mg/L	41.7	28.9	6
	Chloride	mg/L	17.7	16.9	250
	Lithium	mg/L	0.140	0.156	0.014
	Magnesium	mg/L	114	105	NA
	Manganese	mg/L	0.0476	0.510	0.3/0.05
	Molybdenum	mg/L	0.396	0.0746	0.04
	Sodium	mg/L	96.5	85.7	NA
	Strontium	mg/L	0.793	0.629	4
	Sulfate	mg/L	1,420	783	250
MW-17	Boron	mg/L	29.7	16.0	6
	Chloride	mg/L	17.5	17.4	250
	Iron	mg/L	1.23	2.58	0.3
	Lithium	mg/L	0.242	0.278	0.014
	Magnesium	mg/L	193	180	NA
	Manganese	mg/L	0.329	0.265	0.3/0.05
	Molybdenum	mg/L	0.0513	0.1489	0.04
	Sodium	mg/L	77.6	58.2	NA
	Strontium	mg/L	0.499	0.400	4
	Sulfate	mg/L	1,180	869	250
MW-20	Boron	mg/L	1.79	1.3	6
	Lithium	mg/L	0.0203	0.0241	0.014
	Sodium	mg/L	88.1	77.5	NA
	Strontium	mg/L	0.578	0.578	4

Note:
Non detect results are denoted by U and shown as the reporting limit. Table 8 shows 1/2 the Reporting Limit.

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL ARSENIC (unfiltered) (mg/L) MCL = 0.01

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.00200	0.00100U	0.00100U	***0.00460***	0.00100U	***0.00305***	0.00100U	0.00100U	***0.00684***	***0.00335***	0.00100U
Aug-17	0.00200	0.00100U	0.00100U	***0.00246***	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-17	0.00200	0.00100U	0.00100U	0.00100U	0.00100U	0.00057	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Apr-18	0.00200	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-18	0.00200	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-19	0.00200	0.00100U	0.00100U	***0.00278***	0.00100U	0.00100U	0.00100U	0.00100U	**0.00219**	0.00100U	0.00100U
Oct-20	0.00200	0.00100U	0.00100U	***0.00239***	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-21	0.00200	0.00100U	0.00100U	***0.00272***	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-22	0.00200	0.00100U	0.00400U	0.00400U	0.00100U	0.00100U	0.00100U	0.00100U	0.00400U	0.00400U	0.00100U
Oct-23	0.00200	0.00100U	0.00100U	**0.00222**	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-24	0.00200	0.00100U	0.00100U	**0.00207**	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
Oct-25	0.00200	0.00100U	0.00100U	***0.00459***	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U	0.00100U
HISTORIC AVERAGE		0.0010	0.0013	0.0026	0.0010	0.0011	0.0010	0.0010	0.0018	0.0014	0.0010
BASELINE AVERAGE		0.0010	0.0010	0.0023	0.0010	0.0014	0.0010	0.0010	0.0025	0.0016	0.0010
UCL		0.0016			0.0016						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL BORON (unfiltered) (mg/L) HA=6

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.200	0.100U	7.94	6.94	0.100U	0.263	3.39	5.76	31.2	15.2	1.29
Aug-17	0.200	0.100U	6.48	6.75	0.217	0.260	2.52	5.28	24.9	15.6	1.27
Oct-17	0.200	0.100U	7.71	7.07	0.219	0.321	2.40	6.31	28.4	17.9	1.39
Apr-18	0.200	0.100U	7.31	4.48	0.100U	0.291	2.76	5.16	31.0	15.3	1.23
Oct-18	0.200	0.100U	8.53	6.89	0.364	0.452	3.10	6.23	35.9	16.4	1.61
Oct-19	0.200	0.100U	9.35	7.60	0.100U	0.345	2.82	6.06	44.5	17.4	1.37
Oct-20	0.200	0.100U	7.21	6.76	0.282	0.332	3.80	6.77	44.0	25.4	1.51
Oct-21	0.200	0.100U	7.91	6.15	0.208	0.299	2.21	5.60	29.6	26.7	1.71
Oct-22	0.200	0.050U	8.47	7.51	0.219	0.281	2.34	6.32	36.8	25.9	1.37
Oct-23	0.200	0.050U	7.56	8.06	0.216	0.300	1.43	6.23	37.5	19.7	1.45
Oct-24	0.100	0.050U	6.11	7.67	0.336	0.291	1.52	6.56	39.3	33.2	1.47
Oct-25	Varies	0.154	6.98	8.60	0.401	0.310	1.75	7.05	41.7	29.7	1.79
HISTORIC AVERAGE		0.092	7.6	7.0	0.230	0.312	2.50	6.11	35.4	21.5	1.46
BASELINE AVERAGE		0.100	7.36	6.31	0.159	0.284	2.77	5.63	28.9	16.0	1.30
UCL		0.151			0.433						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91c

CHLORIDE (mg/L) SDWR = 250

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Aug-95	5	6	17		2.5U	2.5U	2.5U		18		
Nov-95	5	6.7	24		2.5U	2.5U	2.5U		17		
Feb-96	5	8.3	26			2.5U	2.5U		18		
Jun-96	5	6.1	24		2.5U	2.5U	2.5U		15		
Sep-96	5	9.2	19			2.5U	6.3		20		
Apr-97	5	7.6	20		2.5U	2.5U	5.7		17		
Oct-97	5	7.8	19		5.6	2.5U	2.5U		18		
Apr-98	5	11	31		2.5U	6.4	9.8		18		
Oct-98	5	7.2	24		2.5U	2.5U	5.6				
Apr-99	10	5U	18		5U	5U	5U		16		
Oct-99	10	5U	18		5U	5U	5U		17		
Apr-00	10	5U	15		5U	5U	5U		11		
Dec-00	5	7.4	19.4		2.5U	2.5U	5		16.9		
May-01	5.0	8.9	20.4		2.5U	5.5	10.2		15.5		
Jul-01	5.0	9.9	14.7		2.5U	8.6	7.1		16.9		
Oct-01	5.0	7.6	16.2		2.5U	6.3	6.9		17.9		
Jan-02	5.0	8.0	18.3		2.5U	6.0	5.2		17.3		
Oct-02	5.0	10.3	16.2		2.5U	7.2	2.5U		19.0		
Oct-03	5	12.6	18.1		5.6	6.7	2.5U		19.5		
Oct-04	5.0	6.8	14.3		2.5U	9.0	2.5U		20.2		
Oct-05	5.0	7	2.5U	14.2	2.5U	12.7	16.5	13.0	21.1		
Jan-06	5.0			15.4				15			
Apr-06	5.0			11.3				13.2			
Jul-06	5.0			11.9				13.5			
Oct-06	5.0	7.43	18.3	14.0	5.2	12.4	2.5U	13.4	23.1		
Oct-07	5.0	6.65	17.5	9.91	2.5U	13.9	2.5U	11.9	21.6		
Oct-08	5.0	6.36	15	10.5	2.5U	33.8	2.5U	11.3	21.5		

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

CHLORIDE (mg/L) SDWR = 250

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-09	5.0	6.49	***14.2***	***13.0***	***7.0***	***28.1***	2.5U	***12.2***	***21.9***		
Oct-10	5.0	5.63	***12.6***	***13.0***	2.5U	***17.3***	2.5U	***11.8***	***19.6***		
Oct-11	5.0	7.56	***21.3***	***20.6***	2.5U	***16.7***	2.5U	***15.4***	***21.7***		
Oct-12	5.0	6.32	***19.9***	***21.9***	2.5U	***14.4***	2.5U	***15.1***	***19.9***		
Dec-12	5.0	*9.3*	***25.2***	***22.6***	2.5U	***16.4***	2.5U	***19.2***	***23.8***	***16.1***	
Oct-13	5.0	7.06	***15.3***	***19.2***	2.5U	***13.6***	2.5U	***18.1***	***20.4***	***18.3***	***9.14***
Jan-14	5.0									***17.9***	
Apr-14	5.0									***16.9***	5.41
Jul-14	5.0									***16.6***	
Oct-14	5.0										*5.96*
Oct-14	5.0	***13.7***	***16.5***	***20.5***	5.00	***13.7***	2.5U	***20.4***	***23.4***	***19.1***	***7.29***
Oct-15	5.0	*11.2*	***13.4***	***26.8***	*6.00*	***12.7***	***8.96***	***22.8***	***21.6***	***20.2***	***11.5***
Oct-16	5.0	*9.23*	***36.6***	***15.9***	*5.59*	***12.6***	2.5U	***18.4***	***21.1***	***18.2***	5.65
Aug-17	5.0	*10.4*	***15.3***	***15.8***	2.5U	***10.5***	2.5U	***19.3***	***20.2***	***19.3***	*6.11*
Oct-17	5.0	*10.4*	***13.7***	***16.7***	2.5U	***13.1***	2.5U	***18.6***	***20.3***	***19.4***	5.06
Apr-18	5.0	*10.4*	***14.4***	***18.3***	2.5U	***11.1***	5.26	***18.2***	***19.2***	***19.3***	6.21
Oct-18	5.0	*10.2*	12.3	***15.9***	2.5U	***9.2***	2.5U	***17.3***	***19.4***	***18.0***	2.5U
Oct-19	5.0	7.5	10.7	***13.2***	2.5U	***7.8***	2.5U	***15.9***	***16.7***	***17.1***	2.5U
Oct-20	5.0	2.5U	9.3	2.5U	2.5U	5.8	2.5U	2.5U	***15.2***	***15.6***	2.5U
Oct-21	5.0	*9.61*	9.6	***15.8***	2.5U	***6.91***	2.5U	***15.5***	***16.6***	***18.2***	5.36
Oct-22	5.0	*9.71*	8.92	***13.2***	2.5U	***7.21***	2.5U	***13.8***	***15.2***	***21.0***	2.5U
Oct-23	5.00	*10.3*	9.67	***15.7***	2.5U	***6.30***	2.5U	***15.9***	***18.3***	***16.9***	2.5U
Oct-24	2.00	*12.4*	9.96	***18.6***	*3.45*	***7.30***	2.36	***18.8***	***20.4***	***19.0***	3.71
Oct-25	5.00	*10.6*	8.62	***14.2***	2.5U	***6.59***	2.5U	***15.3***	***17.7***	***17.5***	2.5U
HISTORIC AVERAGE		8.3	16.9	15.6	3.2	9.2	4.1	15.4	18.8	18.1	5.08
BASELINE AVERAGE		8.6	17.4	13.2	2.5	6.6	7.4	13.7	16.9	17.4	5.8
UCL		12.9			5.9						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91c

TOTAL COBALT (unfiltered) (mg/L) Statewide Standard = 0.0028 mg/L

		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
Date	Reporting Limit	MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.000500	0.00135	0.000508	***0.00523***	0.000250U	0.000871	***0.00464***	**0.00259**	***0.00277***	0.000250U	0.000516
Aug-17	0.000500	0.000558	0.000250U	***0.00500***	0.000250U	*0.00104*	***0.00772***	**0.00269**	0.00135	0.000250U	*0.00112*
Oct-17	0.000500	0.00031	0.000250U	***0.00522***	0.00056	*0.00100*	**0.00262**	***0.00423***	0.00061	0.000250U	0.000490
Apr-18	0.000500	0.00106	0.000250U	**0.00379**	***0.00229***	0.000874	0.00200	**0.00274**	*0.00182*	0.000250U	0.000250U
Oct-18	0.000500	0.000250U	0.000250U	**0.00324**	0.000250U	*0.001020*	0.00089	0.00158	*0.00169*	0.000250U	0.000250U
Oct-19	0.000500	0.000250U	0.000250U	**0.00405**	0.000250U	*0.001280*	0.00132	0.00081	***0.00218***	0.000250U	0.00054
Oct-20	0.000500	0.000560	0.000250U	***0.00500***	0.000250U	*0.001200*	0.000659	0.00203	0.000810	0.000250U	0.000250U
Oct-21	0.000500	0.000250U	*0.000638*	***0.00559***	0.000250U	***0.00233***	0.000648	0.000840	0.000250U	0.000250U	0.000250U
Oct-22	0.000500	0.000250U	0.00100U	**0.00363**	0.000250U	0.000723	0.00129	***0.00354***	0.00100U	0.00100U	0.000250U
Oct-23	0.000500	0.000250U	0.000250U	**0.00302**	0.000250U	*0.00149*	0.00162	**0.00282**	0.000780	0.000250U	0.000250U
Oct-24	0.000500	0.000250U	0.000250U	**0.00344**	*0.00108*	*0.00121*	***0.00483***	**0.00192**	0.000250U	0.000250U	0.000250U
Oct-25	0.000500	0.000250U	0.000250U	**0.00385**	0.000250U	0.000934	0.00162	0.00118	0.000250U	0.000250U	0.000250U
HISTORIC AVERAGE		0.000466	0.000366	0.004255	0.000515	0.001164	0.002488	0.002248	0.001147	0.000313	0.000388
BASELINE AVERAGE		0.000820	0.000315	0.004810	0.000838	0.000946	0.004245	0.003063	0.001638	0.000250	0.000594
UCL		0.001205			0.001737						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL IRON (unfiltered) (mg/L) SDWR = 0.3

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.100	*1.03*	0.223	**1.16**	0.050U	***1.82***	***1.10***	**1.02**	*0.507*	***2.93***	0.050U
Aug-17	0.100	0.476	0.207	**1.09**	0.050U	**1.39**	***1.78***	***1.52***	0.322	***3.16***	***1.13***
Oct-17	0.100	0.247	0.5U	0.872	***0.798***	***1.74***	0.398	***1.16***	0.5U	***2.68***	0.213
Apr-18	0.100	0.471	0.184	0.802	*0.354*	***1.79***	**0.938**	0.668	0.399	**1.53**	0.050U
Oct-18	0.100	0.374	0.050U	0.396	0.050U	**1.41**	0.249	0.210	0.129	**2.50**	0.117
Oct-19	0.100	0.181	0.200U	0.893	0.050U	***1.80***	0.125	0.200U	0.050U	***3.34***	0.050U
Oct-20	0.100	*0.595*	0.050U	0.900	0.050U	**1.58**	0.050U	0.176	0.050U	**2.46**	0.137
Oct-21	0.100	0.111	0.050U	***1.80***	0.050U	***2.13***	0.050U	0.400	0.050U	***2.66***	0.050U
Oct-22	0.100	0.050U	0.200U	0.739	0.050U	**1.50**	0.258	0.611	0.200U	**2.00**	0.133
Oct-23	0.100	0.255	0.050U	0.794	0.050U	***3.64***	0.309	**0.770**	0.050U	**1.34**	0.128
Oct-24	0.100	0.260	0.0500U	**0.977**	0.050U	**1.92**	***1.67***	**0.738**	0.123	**1.43**	0.162
Oct-25	Varies	*0.625*	0.0500U	***1.98***	0.050U	***2.64***	0.203	**0.343**	0.200U	**1.23**	0.050U
HISTORIC AVERAGE		0.390	0.151	1.034	0.138	1.95	0.594	0.651	0.215	2.27	0.189
BASELINE AVERAGE		0.556	0.279	0.981	0.313	1.69	1.05	1.09	0.432	2.58	0.361
UCL		0.93			0.59						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL LITHIUM (unfiltered) (mg/L) Statewide Standard = 0.014 mg/L

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.0140	0.0070U	***0.0571***	0.0070U	0.0435	**0.0663**	*0.0434*	0.0257	***0.163***	**0.270**	0.0214
Aug-17	0.0100	0.0050U	**0.0515**	0.0050U	0.0433	**0.0643**	0.0361	0.0242	***0.157***	**0.275**	0.0186
Oct-17	0.0100	*0.0080*	***0.0627***	0.0050U	*0.0500*	***0.0684***	*0.0416*	*0.0318*	***0.165***	***0.314***	*0.0289*
Apr-18	0.0100	0.0050U	**0.0351**	0.0050U	0.0433	**0.0677**	0.0354	0.0237	**0.138**	**0.254**	*0.0274*
Oct-18	0.0100	0.0050U	**0.0411**	0.0050U	0.0448	**0.0591**	0.0309	0.0205	**0.149**	**0.265**	0.0207
Oct-19	0.0100	0.0050U	**0.0444**	0.0050U	0.0417	***0.0708***	0.0339	0.0258	***0.204***	***0.302***	0.0216
Oct-20	0.0100	0.0050U	**0.0383**	0.0050U	*0.0457*	***0.0667***	0.0361	0.0245	***0.162***	***0.317***	*0.0241*
Oct-21	0.0100	0.0050U	**0.0406**	*0.0140*	0.0404	**0.0656**	*0.0410*	0.0237	**0.135**	***0.318***	*0.0210*
Oct-22	0.0100	0.0050U	0.0200U	0.0200U	0.0405	**0.0573**	*0.0392*	0.0182	**0.156**	***0.295***	0.0190
Oct-23	0.0100	0.0050U	**0.0373**	0.0050U	0.0448	**0.0630**	*0.0393*	0.0197	***0.166***	***0.289***	0.0222
Oct-24	0.0100	0.0050U	**0.0333**	0.0050U	0.0445	**0.0643**	0.0348	0.0195	**0.154**	***0.293***	0.0219
Oct-25	0.0100	0.0050U	**0.0331**	0.0050U	0.0408	**0.0635**	0.0336	0.0183	**0.140**	**0.242**	0.0203
HISTORIC AVERAGE		0.0054	0.0412	0.0072	0.0436	0.0648	0.0371	0.023	0.157	0.286	0.0223
BASELINE AVERAGE		0.0062	0.0516	0.0055	0.0450	0.0667	0.0391	0.0264	0.156	0.278	0.0241
UCL		0.0074			0.0490						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL MAGNESIUM (unfiltered) (mg/L) No Standard Established, Use 2-Year Average

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.500	48.2	*30.6*	*44.1*	*31.1*	***84.8***	*23.4*	**38.6**	**103**	**177**	18.3
Aug-17	0.050	*48.1*	29.2	*45.4*	30.8	**77.9**	21.4	**39.2**	**105**	**171**	18.0
Oct-17	0.050	53.3	*35.3*	*45.0*	*32.5*	**78.5**	*23.0*	***44.2***	***113***	***207***	*19.6*
Apr-18	0.0500	42.3	25.2	31.5	29.3	***83.6***	*23.8*	***43.2***	**98.2**	**166**	18.1
Oct-18	0.0500	*50.0*	27.3	38.2	30.4	**73.2**	*25.1*	**35.0**	***121***	**169**	16.7
Oct-19	0.0500	45.9	*33.8*	37.4	*34.0*	**75.5**	22.5	**36.5**	**103**	***192***	17.4
Oct-20	0.0500	*48.9*	*37.0*	39.6	*35.1*	**77.0**	*27.3*	***42.0***	***117***	***230***	*19.5*
Oct-21	0.0500	*49.1*	*36.6*	33.6	30.4	**74.1**	20.3	**35.9**	***108***	***182***	17.0
Oct-22	0.0500	47.1	*30.5*	33.2	28.9	**69.7**	19.6	33.8	***117***	**179**	15.7
Oct-23	0.0500	*50.8*	*32.2*	35.3	*32.4*	**72.7**	19.4	**38.3**	***116***	**157**	16.6
Oct-24	0.500	45.7	27.5	30.8	30.5	**72.5**	18.5	34.1	***126***	***214***	15.3
Oct-25	Varies	46.7	*30.2*	33.1	*31.1*	**80.1**	20.4	**35.3**	***114***	***193***	16.3
2-YEAR AVERAGE		48.3	29.9	33.1	31.5	72.6	19.0	36.2	121	186	16.0
HISTORIC AVERAGE		48.0	31.3	37.3	31.4	76.6	22.1	38.0	112	186	17.4
BASELINE AVERAGE		48.0	30.1	41.5	30.9	81.2	22.9	41.3	105	180	18.5
UCL		53.6			35.0						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL MANGANESE (unfiltered) (mg/L) HA=0.3, SDWR=0.05

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.0200	*0.380*	*0.102*	***8.92***	0.0419	0.276	**2.64**	0.502	*0.783*	*0.266*	*0.132*
Aug-17	0.0100	0.214	0.0496	***8.48***	0.0477	0.271	**2.74**	0.521	0.476	0.244	*0.123*
Oct-17	0.0100	0.170	0.0397	***8.71***	*0.505*	*0.306*	0.463	*0.776*	0.205	*0.293*	*0.102*
Apr-18	0.0100	0.442	0.0330	**7.05**	*0.882*	*0.331*	0.553	0.568	*0.575*	0.255	0.0298
Oct-18	0.0100	0.102	0.0271	**6.20**	0.0274	*0.325*	0.165	0.334	*0.609*	0.212	0.0815
Oct-19	0.0100	0.238	*0.0563*	***8.55***	0.044	*0.313*	0.194	0.167	*0.779*	*0.284*	0.0759
Oct-20	0.0100	0.292	0.0525	**7.73**	0.0050U	*0.363*	0.474	0.410	0.364	*0.336*	0.0669
Oct-21	0.0100	0.160	0.0552	**3.63**	0.0477	*0.466*	0.339	0.147	0.0292	0.248	0.0360
Oct-22	0.0100	0.0615	0.0440	**6.61**	0.0050U	0.251	0.159	***1.54***	0.167	0.262	0.0279
Oct-23	0.0100	0.126	*0.0670*	**5.17**	0.0050U	*0.399*	0.708	*0.598*	0.253	*0.354*	0.0427
Oct-24	0.0100	0.244	*0.0923*	**5.16**	0.0050U	*0.299*	***1.71***	0.247	0.0741	0.257	0.0267
Oct-25	0.0100	0.202	*0.0615*	**7.46**	0.0130	0.293	0.563	0.249	0.0476	*0.329*	0.0259
HISTORIC AVERAGE		0.219	0.057	6.97	0.136	0.324	0.892	0.505	0.363	0.278	0.0642
BASELINE AVERAGE		0.302	0.0561	8.29	0.369	0.296	1.599	0.592	0.510	0.265	0.0967
UCL		0.441			0.682						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL MOLYBDENUM (unfiltered) (mg/L) HA=0.04

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.00200	0.00100U	0.00100U	**0.0509**	0.00100U	0.00100U	0.00100U	0.00100U	***0.0907***	***0.198***	0.00100U
Aug-17	0.00200	0.00100U	0.00100U	***0.0750***	0.00100U	0.00100U	0.00100U	0.00100U	**0.0511**	**0.119**	0.00100U
Oct-17	0.00200	0.00100U	0.00100U	***0.0783***	0.00100U	0.00100U	0.00100U	0.00100U	***0.0806***	**0.0995**	0.00100U
Apr-18	0.00200	0.00100U	0.00100U	**0.0674**	0.00100U	0.00100U	0.00100U	0.00100U	***0.0758***	***0.1790***	0.00100U
Oct-18	0.00200	0.00100U	0.00100U	**0.0524**	0.00100U	0.00100U	0.00100U	0.00100U	**0.0639**	***0.166***	0.00100U
Oct-19	0.00200	0.00100U	0.00100U	***0.0933***	0.00100U	0.00100U	0.00100U	0.00100U	***0.4830***	***0.178***	***0.00242***
Oct-20	0.00200	0.00100U	0.00100U	**0.0626**	0.00100U	0.00100U	0.00100U	0.00100U	***0.0924***	***0.254***	***0.00240***
Oct-21	0.00200	0.00100U	0.00100U	**0.0220**	0.00100U	0.00100U	0.00100U	0.00100U	***0.104***	***0.301***	0.00100U
Oct-22	0.00200	0.00100U	0.00400U	**0.0667**	0.00100U	0.00100U	0.00100U	0.00100U	***0.179***	**0.127**	0.00100U
Oct-23	0.00200	0.00100U	0.00100U	**0.0477**	0.00100U	0.00100U	0.00100U	0.00100U	***0.215***	**0.0972**	0.00100U
Oct-24	0.00200	0.00100U	0.00100U	**0.0448**	0.00100U	0.00100U	0.00100U	0.00100U	***0.259***	**0.0770**	0.00100U
Oct-25	0.00200	0.00100U	0.00100U	***0.0775***	0.00100U	0.00100U	0.00100U	0.00100U	***0.396***	**0.0513**	0.00100U
HISTORIC AVERAGE		0.0010	0.0013	0.0616	0.0010	0.0010	0.0010	0.0010	0.174	0.154	0.0012
BASELINE AVERAGE		0.001	0.001	0.0679	0.0010	0.0010	0.0010	0.0010	0.0746	0.149	0.0010
UCL		0.001			0.001						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

TOTAL SODIUM (unfiltered) (mg/L) No Standard Established, Use 2-Year Average

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.500	*12.4*	***26.9***	***21.8***	*12.0*	12.3	**32.4**	***21.1***	***101***	**56.8**	***80.3***
Aug-17	1.000	12.0	**23.3**	***20.8***	*9.7*	***13.3***	**25.1**	**19.4**	**84.2**	***60.1***	***79.1***
Oct-17	1.000	11.1	**22.6**	***19.7***	8.18	***13.2***	***38.7***	**19.6**	**77.4**	***62.5***	***77.7***
Apr-18	1.00	*12.5*	***24.9***	**14.7**	6.96	11.2	***37.4***	**19.7**	**80**	**53.4**	**72.9**
Oct-18	1.00	*14.3*	**22.7**	**18.0**	7.90	12.2	***40.7***	***20.1***	***100***	***61.0***	***89.3***
Oct-19	1.00	*12.5*	**19.3**	**17.7**	*9.87*	10.1	**32.9**	**18.9**	***99.1***	***68.5***	***78.2***
Oct-20	1.00	*12.9*	**20.0**	**18.7**	*9.84*	10.8	**25.9**	***20.8***	***95.1***	***76.5***	***92.0***
Oct-21	1.00	*13.0*	**18.8**	**18.0**	*9.85*	10.3	**26.4**	**18.6**	**76.1**	***81.5***	***82.7***
Oct-22	1.00	*13.0*	**18.2**	**17.0**	*11.0*	10.4	***45.9***	**18.3**	***91.7***	***81.3***	***82.9***
Oct-23	1.00	*14.2*	**17.9**	**18.3**	*12.5*	11.8	**24.7**	**19.7**	***98.9***	***75.2***	***91.0***
Oct-24	1.00	*12.8*	**15.4**	**16.9**	*12.5*	11.4	**21.2**	**18.3**	***87.2***	***82.4***	***84.0***
Oct-25	1.00	*13.1*	**16.6**	**16.7**	*13.2*	9.97	**24.8**	**18.4**	***96.5***	***77.6***	***88.1***
2-YEAR AVERAGE		13.5	16.7	17.6	12.5	11.6	23.0	19.0	93.1	78.8	87.5
HISTORIC AVERAGE		12.8	20.6	18.2	10.3	11.4	31.3	19.4	90.6	69.7	83.2
BASELINE AVERAGE		12.0	24.4	19.3	9.2	12.5	33.4	20.0	85.7	58.2	77.5
UCL		14.5			14.3						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91c

TOTAL STRONTIUM (unfiltered) (mg/L) HA=4

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-16	0.00100	0.127	***0.327***	***0.413***	0.574	0.719	***0.781***	0.287	0.620	0.379	0.534
Aug-17	0.00100	*0.138*	***0.338***	***0.424***	0.653	0.711	0.743	0.310	*0.645*	*0.405*	*0.592*
Oct-17	0.00100	*0.142*	***0.363***	**0.365**	0.649	0.691	0.734	0.318	0.583	0.397	0.557
Apr-18	0.00100	0.128	**0.263**	**0.288**	*0.741*	***0.871***	***0.828***	*0.357*	*0.668*	*0.420*	*0.628*
Oct-18	0.00100	0.134	**0.290**	**0.330**	0.648	0.656	0.585	0.273	0.543	0.342	0.517
Oct-19	0.00100	*0.138*	***0.357***	**0.358**	*0.668*	***0.757***	0.676	*0.320*	***0.766***	*0.430*	0.565
Oct-20	0.00100	*0.137*	***0.358***	**0.328**	0.612	***0.761***	0.730	*0.320*	***0.778***	*0.494*	*0.591*
Oct-21	0.00100	*0.151*	***0.397***	**0.263**	0.586	***0.780***	***0.899***	*0.373*	*0.651*	*0.506*	*0.584*
Oct-22	0.00100	*0.138*	**0.319**	**0.278**	0.626	0.711	**0.741**	*0.335*	*0.652*	*0.441*	0.567
Oct-23	0.00100	*0.146*	***0.330***	**0.273**	0.594	0.646	***0.840***	0.315	*0.645*	*0.424*	0.544
Oct-24	0.00100	0.132	**0.313**	**0.249**	*0.706*	***0.790***	***0.880***	*0.368*	*0.717*	*0.580*	*0.616*
Oct-25	0.00100	0.132	**0.323**	**0.293**	0.634	***0.761***	***0.860***	*0.326*	***0.793***	*0.499*	0.578
HISTORIC AVERAGE		0.137	0.332	0.322	0.641	0.738	0.775	0.325	0.672	0.443	0.573
BASELINE AVERAGE		0.134	0.323	0.373	0.654	0.748	0.772	0.318	0.629	0.400	0.578
UCL		0.151			0.738						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91c

SULFATE (mg/L) SDWR=250

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Aug-95											
Nov-95											
Feb-96											
Jun-96											
Sep-96											
Apr-97											
Oct-97											
Apr-98											
Oct-98											
Apr-99											
Oct-99											
Apr-00											
Dec-00											
May-01	10	88	***800***		*50*	**320**	***180***		**81**		
Jul-01	10	*120*	**170**		*32*	**150**	27		**250**		
Oct-01	10	96	***860***		16	***540***	***150***		***1,700***		
Jan-02	10	88	***980***		14	***470***	***120***		***1,100***		
Oct-02	10	*110*	***850***		*35*	***500***	**78**		***1,100***		
Oct-03	10	89	***1,100***		17	***420***	**66**		***1,400***		
Oct-04	10.0	92.5	***790***		15.8	***538***	**72.5**		***1,420***		
Oct-05	10.0	*130*	***990***	***380***	22.0	***750***	**94.0**	***370***	***1,900***		
Jan-06	10.0			***394***				**304**			
Apr-06	10.0			**361**				***355***			
Jul-06	10.0			***380***				**232**			
Oct-06	10.0	*121*	***798***	**338**	16.8	***456***	**49.5**	**259**	***1,610***		
Oct-07	10.0	*125*	***1,020***	**315**	23.5	***665***	**74.9**	***398***	***1,760***		
Oct-08	10.0	91.8	**664**	**184**	18.4	***840***	**116**	**265**	***1,380***		

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

SULFATE (mg/L) SDWR=250

Date	Reporting Limit	Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-09	200.0	79.0	600	200	21.0	*730*	110	92.0	*1,400*		
Oct-10	100/200	*102*	479	193	19.3	*522*	*137*	211	*1,300*		
Oct-11	Varies	*111*	*788*	245	19.8	*471*	90	211	*1,480*		
Oct-12	Varies	*113*	*801*	307	16.1	*457*	55.7	248	*1,400*		
Dec-12	Varies	*109*	*992*	295	14.7	*452*	68.6	226	*1,520*	804	
Oct-13	Varies	*105*	551	332	17.4	*452*	65.3	257	*1,440*	*957*	31.3
Jan-14	100									860	
Apr-14	100									828	20.4
Jul-14	100									830	
Oct-14											19.6
Oct-14	Varies	97.6	520	309	23.0	*408*	96.5	211	*1,330*	*947*	25.7
Oct-15	20.00	78.0	310	265	20.8	364	62.8	202	*1,350*	*901*	24.8
Oct-16	5.00	77.9	313	177	22.4	340	87.1	185	*1,370*	*984*	28.1
Aug-17	5.00	85.2	272	175	19.8	325	85.0	161	*1,200*	*973*	29.2
Oct-17	5.00	84.7	307	153	18.5	311	114	150	*1,260*	*1,050*	26.9
Apr-18	5.00	82.4	288	125	15.2	319	*176*	142	*1,330*	*1,070*	25.4
Oct-18	5.00	84.6	283	135	14.7	306	*179*	136	*1,330*	*1,010*	24.5
Oct-19	5.00	87.3	301	105	19.6	303	*140*	128	*1,250*	*948*	24.9
Oct-20	5.00	19.9	265	25.8	2.50U	270	21.8	22.3	*1,320*	*949*	25.8
Oct-21	5.00	89.2	318	108	21.2	275	50.2	90.8	*1,140*	*1,140*	27.0
Oct-22	5.00	75.6	216	78.1	16.6	247	54.1	59.9	*929*	*1,060*	22.6
Oct-23	5.00	74.3	206	75.6	18.8	250	24.4	62.2	*1,380*	*1,090*	26.7
Oct-24	Varies	89.0	177	89.9	*31.1*	244	37.1	81.5	*1,260*	*1,190*	36.5
Oct-25	Varies	89.7	191	68.3	21.5	304	37.8	65.0	*1,420*	*1,180*	29.9
HISTORIC AVERAGE		93	555	215	20	419	88	190	1,294	988	26
BASELINE AVERAGE		98	703	379	28	370	119	315	783	856	108
UCL		134			36.5						

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

Temperature (degrees Celsius)

Date		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Aug-95											
Nov-95											
Feb-96											
Jun-96											
Sep-96		17.0	20.0			18.0	18.0		14.0		
Apr-97											
Oct-97		13.6	13.1		13.1	11.8	11.2		13.4		
Apr-98											
Oct-98			14.5				11.9				
Apr-99											
Oct-99		11.7	13.3		11.7	10.6	11.1		13.3		
Apr-00		8.5	7.5		11.0	10.0	9.0		12.0		
Dec-00		10	10.0		11	11	12		10		
May-01		10.5	13.1		11.4	13.4	12.9		12.6		
Jul-01		13.9	15.2		12.8	15.3	15.0		13.8		
Oct-01		11	12.6		9	10.5	11.4		12.6		
Jan-02		12	9.3		9	11.7	9.9		10.2		
Oct-02		10.7	12.0		8.1	10.8	10.6		11.0		
Oct-03		14.7	13		13.5	12.5	14.5		14.7		
Oct-04		12.7	14		12.7	11.5	11.9		13.2		
Oct-05		15.7	15.9	15.1	13.5		13.7	12.8	13.9		
Jan-06											
Apr-06											
Jul-06											
Oct-06											
Oct-07		14.4	15.1	17.1	13.2	12.7	12.5	16.2	14.1		
Oct-08		13.5	11.8	15.1		11.6	11.1	13.5	11.1		

Table 8

Analytical Data Summary
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Temperature (degrees Celsius)

Date		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-09		13.9	14.9	16.9	13.0	13.9	12.6	16.0	13.9		
Oct-10		12.6	12.5	16.5	12.3	11.9	11.1	14.3	12.2		
Oct-11		12.4	11.3	14.5	11.5	11.5	9.7	13.9	10.9		
Oct-12		16.5	13.4	16.0	14.8	15.4	11.8	15.6	12.1		
Dec-12		11.9	10.5	12.1	11.6	11.1		13.7	12.3	12.5	
Oct-13		10.3	10.2	11.7	10.3	9.2	9.6	13.0	10.0	11.4	9.4
Jan-14										7.4	
Apr-14										8.7	10.3
Jul-14										14.9	
Oct-14											12.3
Oct-14		11.9	11.9	10.8	11.1	11.0	10.1	12.5	10.9	11.9	11.6
Oct-15		13.5	15.6	16.1	11.0	11.9	14.1	14.8	15.0	14.3	12.5
Oct-16		12.0	14.2	16.4	13.0	10.9	12.0	14.7	14.1	14.3	11.7
Aug-17		11.4	13.9	15.7	13.1	10.7	12.9	13.5	13.1	12.8	12.9
Oct-17		12.7	13.3	15.7	12.8	11.7	11.1	14.0	12.1	12.8	11.0
Apr-18		9.5	7.0	7.2	10.5	10.5	10.4	9.8	10.2	8.7	9.7
Oct-18		12.3	13.9	15.3	11.3	10.7	11.6	14.2	12.8	13.8	12.7
Oct-19		12.6	15.4	16.9	13.1	12.3	12.2	14.4	13.4	14.5	12.8
Oct-20		16.7	14.0	13.2	14.3	13.6	17.1	17.5	13.6	13.5	16.5
Oct-21		14.45	14.51		18.04	13.78	14.61	19.23	19.8	17.06	13.4
Oct-22		13.32	14.65	16.35	12.46	13.34	12.07	14.86	14.86	14.17	16.99
Oct-23		12.92	14.97	16.60	14.29	11.48	14.85	14.86	17.08	14.03	12.68
Oct-24		14.67	16.15	17.15	14.84	13.06	14.72	16.03	20.72	15.44	15.88
Oct-25		13.69	15.70	17.13	15.69	12.35	12.62	15.99	14.86	14.70	14.11

Table 8

Analytical Data Summary
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pH

Date		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Aug-95											
Nov-95											
Feb-96											
Jun-96											
Sep-96		6.48	6.95			6.83	7.16		7.27		
Apr-97											
Oct-97		6.70	6.14		7.12	6.60	6.14		6.95		
Apr-98											
Oct-98		8.01	8.30		8.62	8.66	7.12				
Apr-99											
Oct-99		6.92	7.01		7.19	7.01	7.44		6.40		
Apr-00		7.00	6.59		7.46	6.81	7.31		6.96		
Dec-00		6.62			7.25	5.72	6.79		6.61		
May-01		7.00	7.05		7.50	7.32	6.84		7.44		
Jul-01		6.98	6.81			6.75	7.2		7.58		
Oct-01		7.04	6.43		7.32	5.72	7.01		6.97		
Jan-02		7.01	6.47		7.32	6.78	7.20		6.90		
Oct-02		7.01	8.28		9.31	7.30	8.34		7.49		
Oct-03		7.10	6.7		7.52	6.83	7.22		6.98		
Oct-04		6.78	7.15		7.60	5.82	7.33		7.12		
Oct-05		7.84	7.05	6.30	7.90		7.49	5.84	6.81		
Jan-06											
Apr-06											
Jul-06											
Oct-06		6.68	6.26	6.16		6.13	7.24		6.68		
Oct-07		7.92	7.34	7.67	7.84	7.23	7.40	8.30	7.15		
Oct-08		7.10	6.65	6.88		6.76	7.24	7.10	6.99		

Table 8

Analytical Data Summary
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pH

Date		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-09		7.13	6.93	6.96	7.16	6.94	7.23	7.12	6.91		
Oct-10		7.10	6.60	6.83	7.22	6.71	7.19	7.16	7.01		
Oct-11		7.11	6.56	7.00	7.30	7.08	7.24	7.28	7.07		
Oct-12											
Dec-12		6.88	6.43	6.75	7.02	6.67		6.91	6.87	6.97	
Oct-13		6.88	6.44	6.85	7.03	6.74	6.54	6.76	5.64	6.15	7.00
Jan-14										6.42	
Apr-14										6.25	7.35
Jul-14										6.72	
Oct-14											5.44
Oct-14		7.74	7.57	5.56	7.41	7.50	7.93	6.32	7.57	7.23	8.00
Oct-15		7.03	6.63	6.70	7.23	6.77	7.35	6.92	7.08	6.95	7.52
Oct-16		6.85	6.52	6.79	7.35	6.73	7.06	6.88	6.88	6.98	7.38
Aug-17		6.56	6.37	6.65	6.40	6.60	6.88	6.76	6.85	6.82	7.14
Oct-17		6.76	6.43	6.73	7.30	5.94	6.96	6.76	6.71	6.71	7.16
Apr-18		6.78	6.58	6.95	7.00	6.61	7.15	6.94	6.84	6.97	7.52
Oct-18		6.97	6.57	6.92	7.43	6.83	7.06	6.97	6.96	7.06	7.47
Oct-19		7.03	6.54	6.77	6.05	6.90	7.13	6.79	7.03	7.16	7.35
Oct-20		6.94	6.53	6.92	7.36	6.80	7.09	6.98	7.00	7.03	7.48
Oct-21		7.00	7.11		7.44	6.79	7.30	7.05	7.05	6.96	6.83
Oct-22		7.02	6.69	7.23	7.68	6.84	7.13	7.30	7.27	7.33	7.41
Oct-23		6.42	6.44	6.72	8.07	6.48	6.98	6.70	6.83	6.82	7.11
Oct-24		6.55	6.33	6.55	7.27	6.49	6.85	6.63	6.65	6.69	7.10
Oct-25		6.69	6.60	6.83	7.46	6.72	7.10	6.84	7.04	6.94	7.47

Table 8

Analytical Data Summary
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Specific Conductance (microSiemens/cm)

Date		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Aug-95											
Nov-95											
Feb-96											
Jun-96											
Sep-96											
Apr-97											
Oct-97		785	1,205		570	1,114	483		1,290		
Apr-98											
Oct-98		880	1,830		664	1,140	620				
Apr-99											
Oct-99		891	1,580		619	1,432	672		2,200		
Apr-00		847	1,461		585	1,192	821		1,917		
Dec-00		839	1,626		592	1,287	761		2.27		
May-01		895	1,903		642	1,415	927		2,080		
Jul-01		783	1,704			1,362	870		1,899		
Oct-01		897	1,710		674	1,287	846		2.35		
Jan-02		887	1,828		674	1,566	802		2,345		
Oct-02		873	1,799		625	1,566	744		2,333		
Oct-03		896	2,090		636	1,473	747.4		2,394		
Oct-04		976	1,822		719.8	1,833	817.2		2,964		
Oct-05		855	1,711	979	612		728	933	2,463		
Jan-06											
Apr-06											
Jul-06											
Oct-06		1,315	2,170	1,107	782	3,760	828		2,680		
Oct-07		861	1,751	797	629	1,811	716	943	246		
Oct-08		908	1,537	764		2,190	818	954	2,583		

Table 8

Analytical Data Summary
2025 Annual Water Quality Report
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Specific Conductance (microSiemens/cm)

Date		Water Table			Uppermost Aquifer						
		Upgradient	Downgradient		Upgradient	Downgradient					
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Oct-09		866	1,315	880	705.00	1,980	856	911	2,570		
Oct-10		896.6	1,288	879.7	676.2	1,761	899.9	893.5			
Oct-11		921.4	1,740	1,047	693	1,621	820	927	2,601		
Oct-12		1,036	1,691	1,050	633	1,543	835	1,005	2,501		
Dec-12		938.2	1,985	1,082	663.3	1,517		1,022	2,708	1,917	
Oct-13		829.9	1,153	1,021	601.0	1,353	826.2	956.7	254	1,890	651.0
Jan-14										1,995	
Apr-14										2,081	700.0
Jul-14										1,979	
Oct-14											754.2
Oct-14		852	1,190	1,183	694.4	1,328	938.1	938.7	2,200	1,899	624.5
Oct-15		891.2	1,024	1,220	677.1	1,424	709.4	1,029	2,488	2,035	672.5
Oct-16		867	978	1,080	654	1,400	703	1,020	2,410	2,090	667
Aug-17		913	962	1,110	723	1,330	678	1,000	2,260	2,160	691
Oct-17		1,430	1,690	1,760	1,110	2,200	1,260	1,720	4,060	3,830	1,180
Apr-18		880	1,040	927	667	1,400	781	997	2,530	2,250	695
Oct-18		906	1,005	979	686	1,310	887	998	1,825	2,114	688
Oct-19		1,160	1,100	1,040	625	1,370	840	970	2,550	2,170	730
Oct-20		845	960	1,000	681	1,190	691	857	2,390	2,270	655
Oct-21		846	1,128		771	1,144	677	854	2,105	2,154	626
Oct-22		926	1,001	832	751	1,183	790	840	1,922	1,909	686
Oct-23		824	805	810	603	1,108	499	820	2,291	2,067	612
Oct-24		942	872	903	689	1,313	622	929	2,647	2,567	701
Oct-25		767	747	755	577	1,150	546	763	2,180	2,060	581

Table 8

Analytical Data Summary
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Notes:
Baseline Data to be completed in 2018 for all calculations except Chloride and Sulfate.
mg/L - Milligrams per liter.
MCL - Maximum Contaminant Level.
UCL - Upgradient Control Limit.
HA - Health Advisory.
SDWR - Safe Drinking Water Regulations Guideline.
U - Value shown is 1/2 the detection limit. This value was used, where applicable, in calculation of UCL, baseline, and 2-year average.
Shaded values indicate concentration exceeds water quality criteria (e.g, the MCL, HA, SDWR limit, SWS, or 2-year average).
BOLD Bold indicates value exceeds the calculated UCL.
Italics Italics indicates sample result exceeds baseline concentration.
UCL, calculated as the Historic Average plus two standard deviations; based on upgradient wells only.
2-Year Average is the average concentration over the prior two years of sampling data.
Historic Average is the average based on analytical results for each well as shown. Historic dissolved metals are not included.
Baseline Average is the average concentration based four (4) quarters or four (4) initial sampling events.

Table 9

Historic Control Limit and Action Level Exceedances
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
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Key: gray =CL; black =action level		Fall 2021	Fall 2022	Fall 2023	Fall 2024	Fall 2025
Well	**Constituent**					
MW-1	Chloride					
	Cobalt					
	Iron					
	Lithium					
	Magnesium					
	Manganese					
	Sodium					
	Strontium					
	Sulfate					
MW-2	Boron					
	Lithium					
	Magnesium					
	Manganese					
	Sodium					
	Strontium					
	Sulfate					
MW-3	Boron					
	Cobalt					
	Iron					
	Lithium					
	Magnesium					
	Manganese					
	Sodium					
	Strontium					
	Sulfate					
MW-5	Boron					
	Chloride					
	Cobalt					
	Iron					
	Lithium					
	Magnesium					
	Manganese					
	Sodium					
	Sulfate					

Table 9

Historic Control Limit and Action Level Exceedances
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
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Key: gray =CL; black =action level						
Well	**Constituent**	**Fall 2021**	**Fall 2022**	**Fall 2023**	**Fall 2024**	**Fall 2025**
MW-6	Arsenic					
	Boron					
	Chloride					
	Cobalt					
	Iron					
	Magnesium					
	Manganese					
	Molybdenum					
	Sodium					
	Strontium					
MW-9	Lithium					
	Magnesium					
	Sodium					
MW-11	Iron					
	Magnesium					
	Manganese					
	Sodium					
MW-15	Boron					
	Chloride					
	Lithium					
	Magnesium					
	Manganese					
	Molybdenum					
	Sodium					
	Strontium					
	Sulfate					

Table 9

Historic Control Limit and Action Level Exceedances
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CIPCO Fair Station CCR Monofill
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Key: gray =CL; black =action level		Fall 2021	Fall 2022	Fall 2023	Fall 2024	Fall 2025
Well	**Constituent**					
MW-17	Boron					
	Chloride					
	Iron					
	Lithium					
	Magnesium					
	Manganese					
	Molybdenum					
	Sodium					
	Sulfate					
MW-20	Boron					
	Lithium					
	Magnesium					
	Sodium					

Note:
Data shown for 5 years total.

Table 10

October 2025 Groundwater Quality Assessment Plan Trend Analysis
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
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		Water Table			Uppermost Aquifer						
		MW-11	MW-2	MW-6	MW-9	MW-1	MW-3	MW-5	MW-15	MW-17	MW-20
Parameter	***Units***	***UG***	***DG***	***DG***	***UG***	***DG***	***DG***	***DG***	***DG***	***DG***	***DG***
Arsenic	mg/L	ND	ND	0.00459	ND	ND	ND	ND	ND	ND	ND
	Trend	NA	NA	None	NA	NA	NA	NA	NA	NA	NA
Boron	mg/L	0.154	6.98	8.60	0.401	0.310	1.75	7.05	41.7	29.7	1.79
	Trend	None	Decreasing	Increasing	None	None	None	None	Increasing	Increasing	None
Chloride	mg/L	10.6	8.62	14.2	ND	6.59	ND	15.3	17.7	17.5	ND
	Trend	None	Decreasing	None	NA	Decreasing	NA	None	None	None	NA
Cobalt	mg/L	ND	ND	0.00385	ND	0.000934	0.00162	0.00118	ND	ND	ND
	Trend	NA	NA	Increasing	NA	None	Increasing	Decreasing	NA	NA	NA
Iron	mg/L	0.625	ND	1.980	ND	2.64	0.203	0.343	ND	1.23	ND
	Trend	Increasing	NA	Increasing	NA	Increasing	None	None	NA	Decreasing	None
Lithium	mg/L	ND	0.0331	ND	0.0408	0.0635	0.0336	0.0183	0.140	0.242	0.0203
	Trend	NA	Decreasing	NA	None	None	None	None	None	Decreasing	None
Magnesium	mg/L	46.7	30.2	33.1	31.1	80.1	20.4	35.3	114	193	16.3
	Trend	None	Decreasing	Decreasing	None	None	None	None	None	None	None
Manganese	mg/L	0.202	0.0615	7.46	0.0130	0.293	0.563	0.249	0.0476	0.329	0.0259
	Trend	None	None	None	None	None	Increasing	Decreasing	None	None	None
Molybdenum	mg/L	ND	ND	0.0775	ND	ND	ND	ND	0.396	0.0513	ND
	Trend	NA	NA	None	NA	NA	NA	NA	Increasing	Decreasing	NA
Sodium	mg/L	13.1	16.6	16.7	13.2	9.97	24.8	18.4	96.5	77.6	88.1
	Trend	None	Decreasing	Decreasing	None	None	None	None	None	Increasing	None
Strontium	mg/L	0.132	0.323	0.293	0.634	0.761	0.860	0.326	0.793	0.499	0.578
	Trend	None	Decreasing	None	None	None	Increasing	None	Increasing	Increasing	None
Sulfate	mg/L	89.7	191	68.3	21.5	304	37.8	65.0	1,420	1,180	29.9
	Trend	None	Decreasing	Decreasing	None	Decreasing	None	Decreasing	None	Increasing	None
Temperature	°C	13.69	15.70	17.13	15.69	12.35	12.62	15.99	14.86	14.70	14.11
	Trend	None	None	None	None	None	None	None	None	None	None
pH	pH Units	6.69	6.60	6.83	7.46	6.72	7.10	6.84	7.04	6.94	7.47
	Trend	None	None	None	None	None	None	None	None	None	None
Specific Conductance	µS/cm	767	747	755	577	1,150	546	763	2,180	2,060	581
	Trend	None	Decreasing	None	None	Decreasing	None	None	None	None	None

Notes:
UG - Upgradient.
mg/L - Milligrams per liter.
µS/cm - MicroSiemens per centimeter.
NA - Not applicable; no trend observed due to predominance of non-detect results.
ND - Not detected.
NS - Not sampled.
°C - Degrees Celsius.
Shaded values indicate concentration exceeds water quality criteria (e.g, the MCL, HA, SDWR limit, SWS, or 2-year average).

Table 11

Leachate Management Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

This table is not applicable to the CIPCO Fair Station CCR Monofill

Table 12

Gas Monitoring Summary
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C

This table is not applicable to the CIPCO Fair Station CCR Monofill

Table 13

Groundwater Elevations [a]
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C
October 16, 2025

Monitoring Well	Unit	Elevation (feet)
MW-1	Uppermost Aquifer	565.71
MW-2	Water Table	551.92
MW-3	Uppermost Aquifer	549.71
MW-4	Water Table	547.59
MW-5	Uppermost Aquifer	549.53
MW-6	Water Table	548.63
MW-7	Water Table	554.34
MW-9	Uppermost Aquifer	599.09
MW-10	Water Table	609.86
MW-11	Water Table	578.69
MW-15	Uppermost Aquifer	546.14
MW-17	Uppermost Aquifer	544.58
MW-20	Uppermost Aquifer	554.30

Notes:
[a] All groundwater elevations in feet North American Vertical Datum 1988.
CCR - Coal combustion residue.

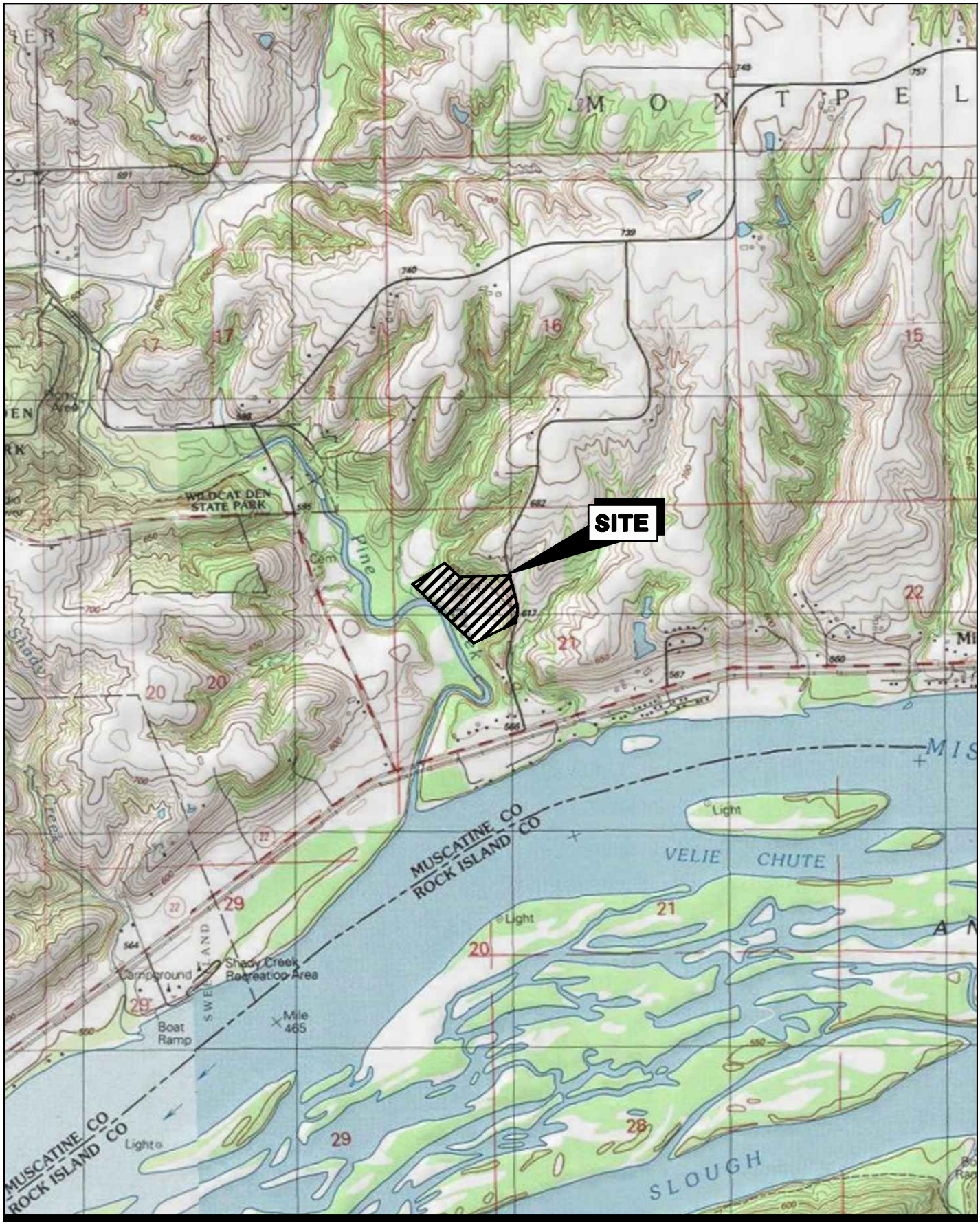
Table 14

Vertical Hydraulic Grandients[a] (ft/ft)
2025 Annual Water Quality Report
CIPCO Fair Station CCR Monofill
Permit No. 70-SDP-09-91C
October 16, 2025

Well Cluster	Gradient
Shallow/Deep	
MW-2/MW-3	-0.061
MW-6/MW-5	0.055
MW-10/MW-9	-0.128
MW-7/MW-20	-0.002

Notes:
[a] Positive hydraulic gradients indicate upward-directed flow, and negative hydraulic gradients indicate downward-directed flow.
CCR - Coal combustion residue.
ft/ft - Foot per foot.

Figures



0 1000 2000 ft

1" = 2000 ft

Coordinate System:
<INSERT HERE>

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

Project No. **12560436**
Date **November 2025**

SITE LOCATION MAP

FIGURE 1

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D101_DE-007.dwg
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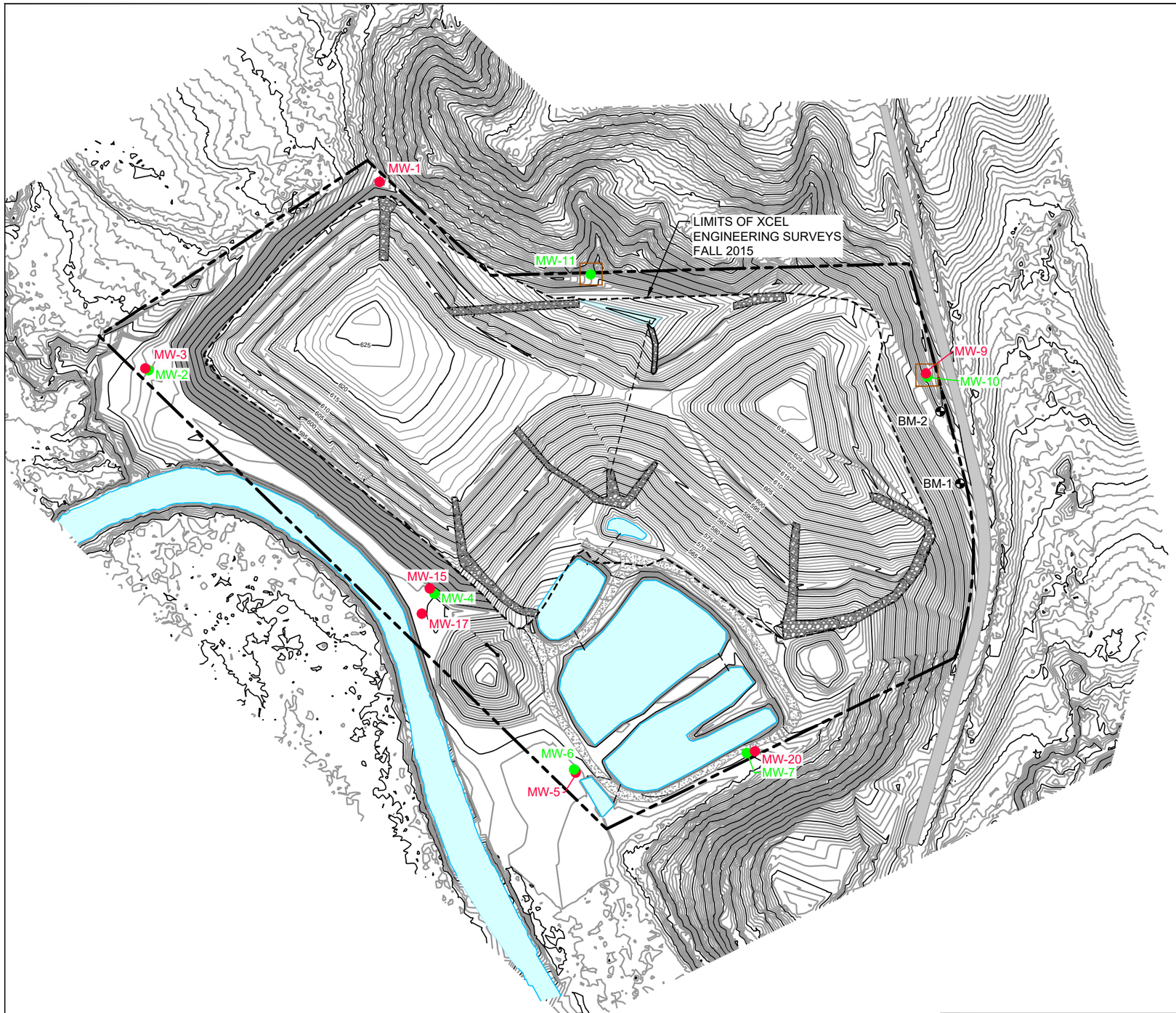

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- BM-2 — BENCHMARK LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION

BENCHMARKS:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BM-1 - SPIKE IN CORNER POSTS SOUTH ENTRANCE AS SHOWN
ELEV = 620.53'

BM-2 - MAG NAIL IN TOP OF THE NORTHERLY GATE POST AS SHOWN
ELEV = 627.73'

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, AND MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

SITE MAP AND MONITORING NETWORK

Project No. **12560436**
Date **November 2025**

FIGURE 2

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D102_DE-007.dwg
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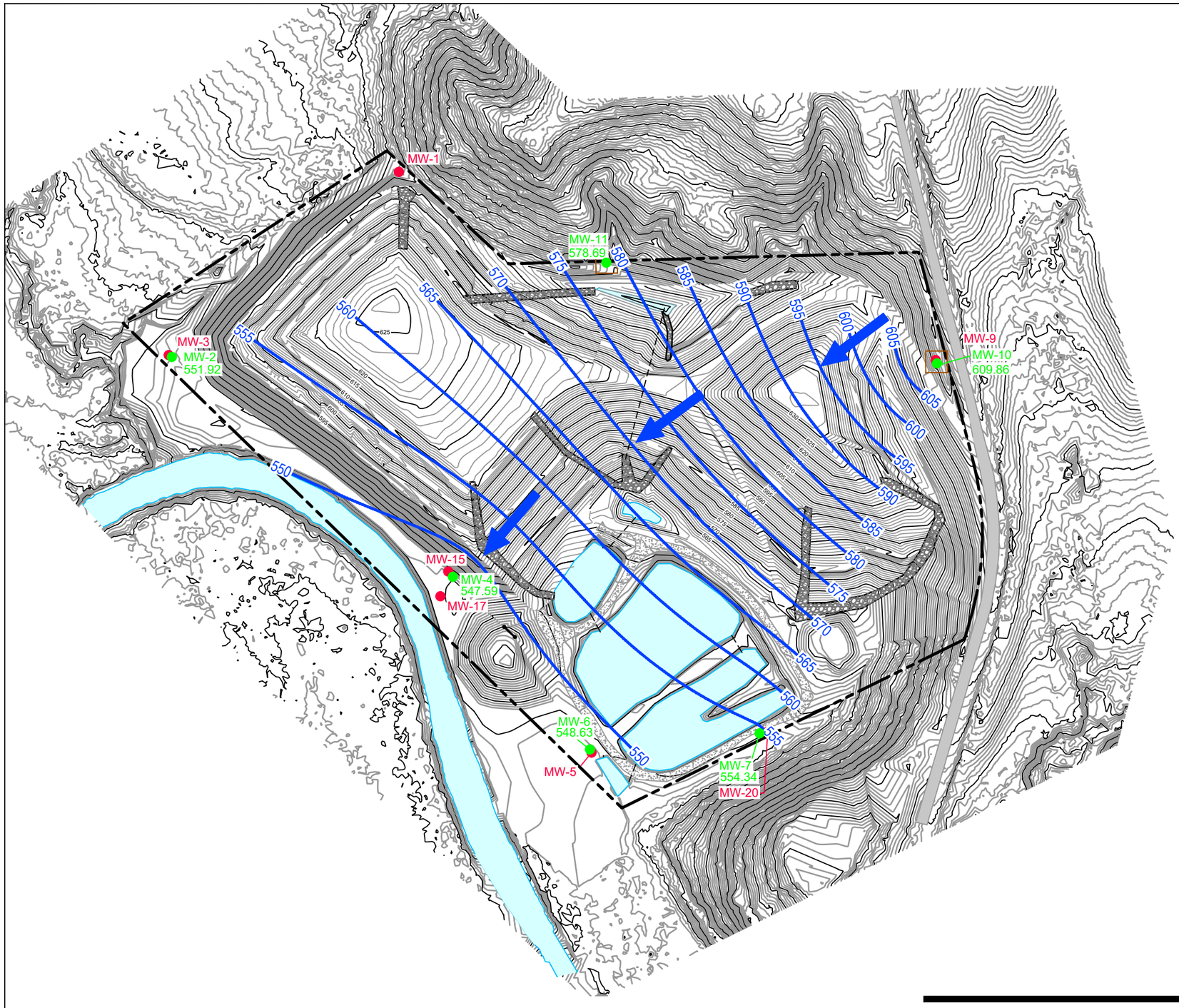

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-2 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 600 — GROUNDWATER ELEVATION CONTOUR
- FLOW DIRECTION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

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0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

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CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

WATER TABLE POTENTIOMETRIC SURFACE OCTOBER 16, 2025

Project No. **12560436**
Date **November 2025**

FIGURE 3

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D103_DE-007.dwg
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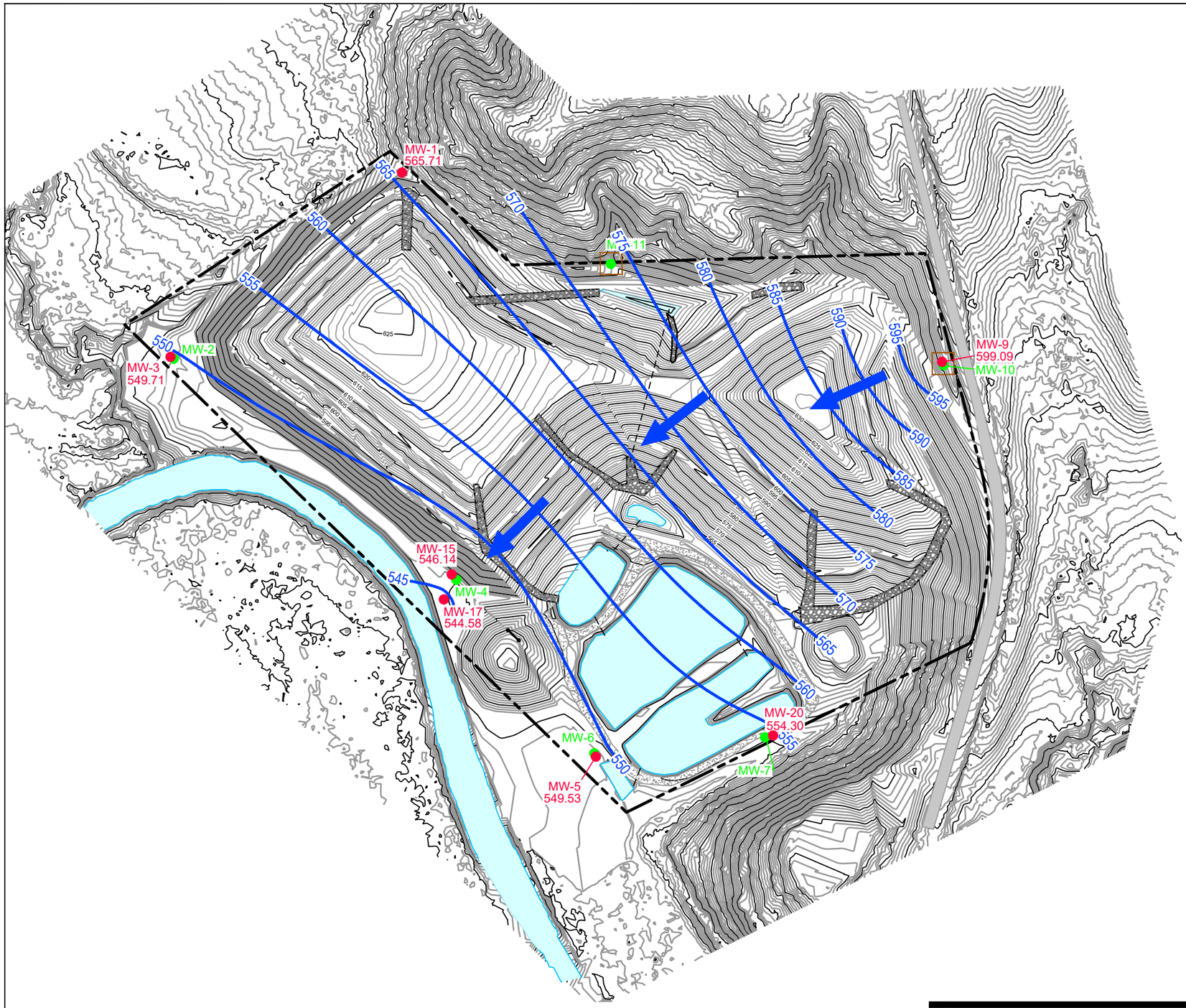

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-2 — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 595 — GROUNDWATER ELEVATION CONTOUR
- FLOW DIRECTION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

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0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

UPPERMOST AQUIFER POTENTIOMETRIC SURFACE OCTOBER 16, 2025

Project No. **12560436**
Date **November 2025**

FIGURE 4

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D104_DE-007.dwg
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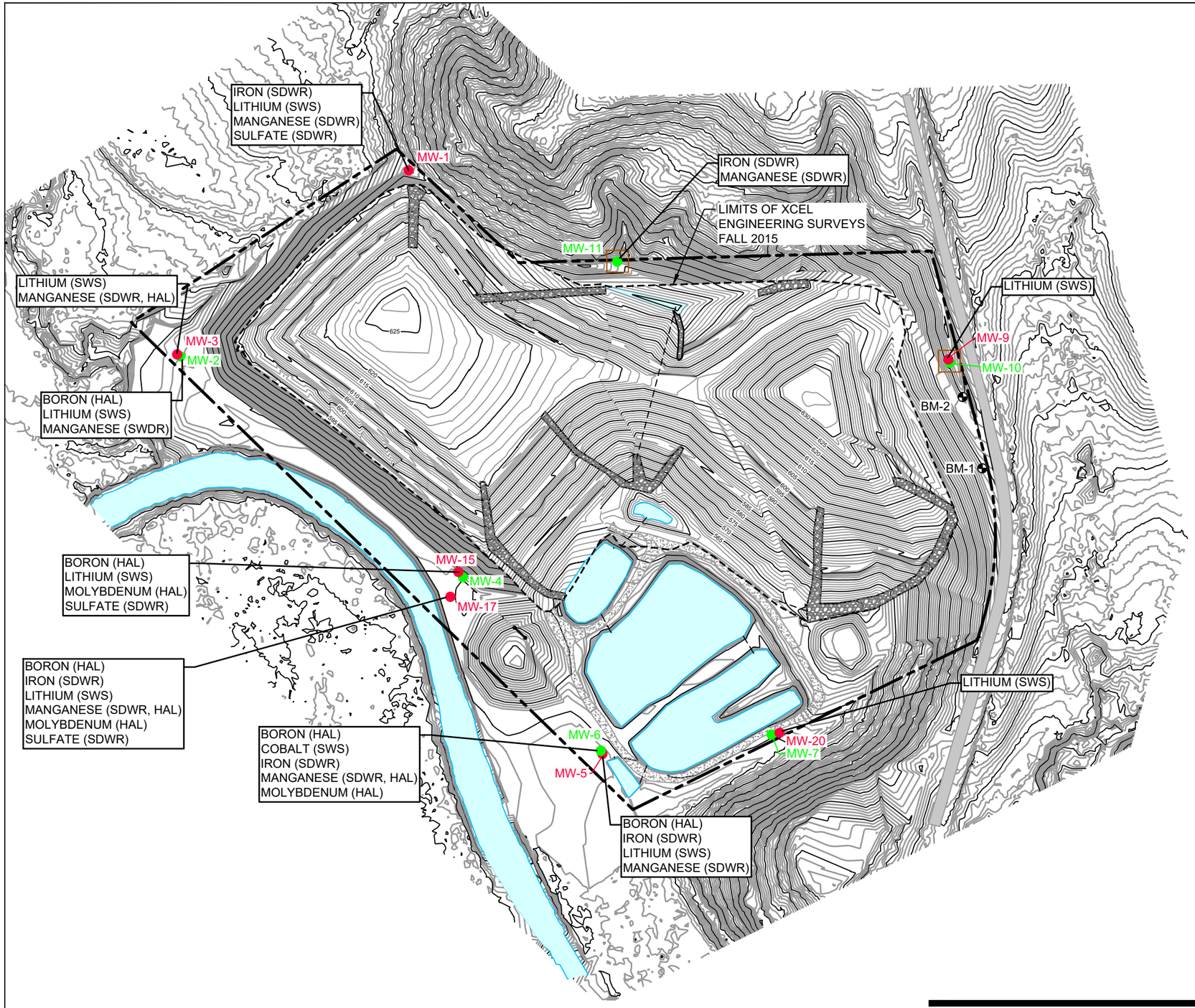

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- HAL = HEALTH ADVISORY LEVEL
- SDWR = SECONDARY DRINKING WATER REGULATION
- SWS = STATEWIDE STANDARD

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

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2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.
3. NO CONCENTRATION EXCEEDED A MAXIMUM CONTAMINANT LEVEL (MCL).

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPSO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

SUMMARY OF EXCEEDANCES OF PUBLISHED STANDARDS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 5

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D105_DE-007.dwg
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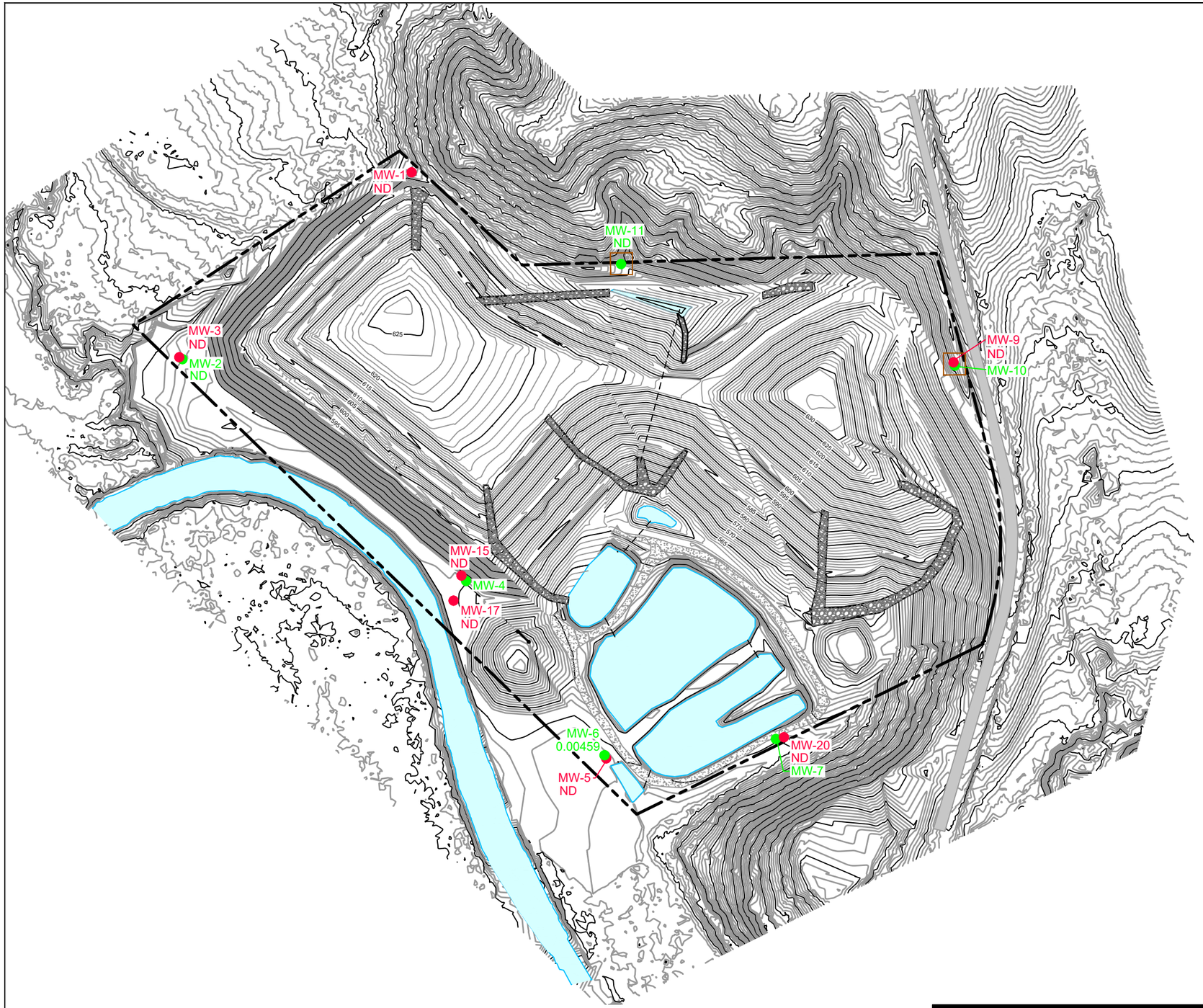

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 0.00459 — ARSENIC CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

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2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

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CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

ARSENIC SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 6

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D106_DE-007.dwg
Plot Date: 18 November 2025 10:23 AM

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- 0.401 BORON CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

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2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

BORON SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 7

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D107_DE-007.dwg
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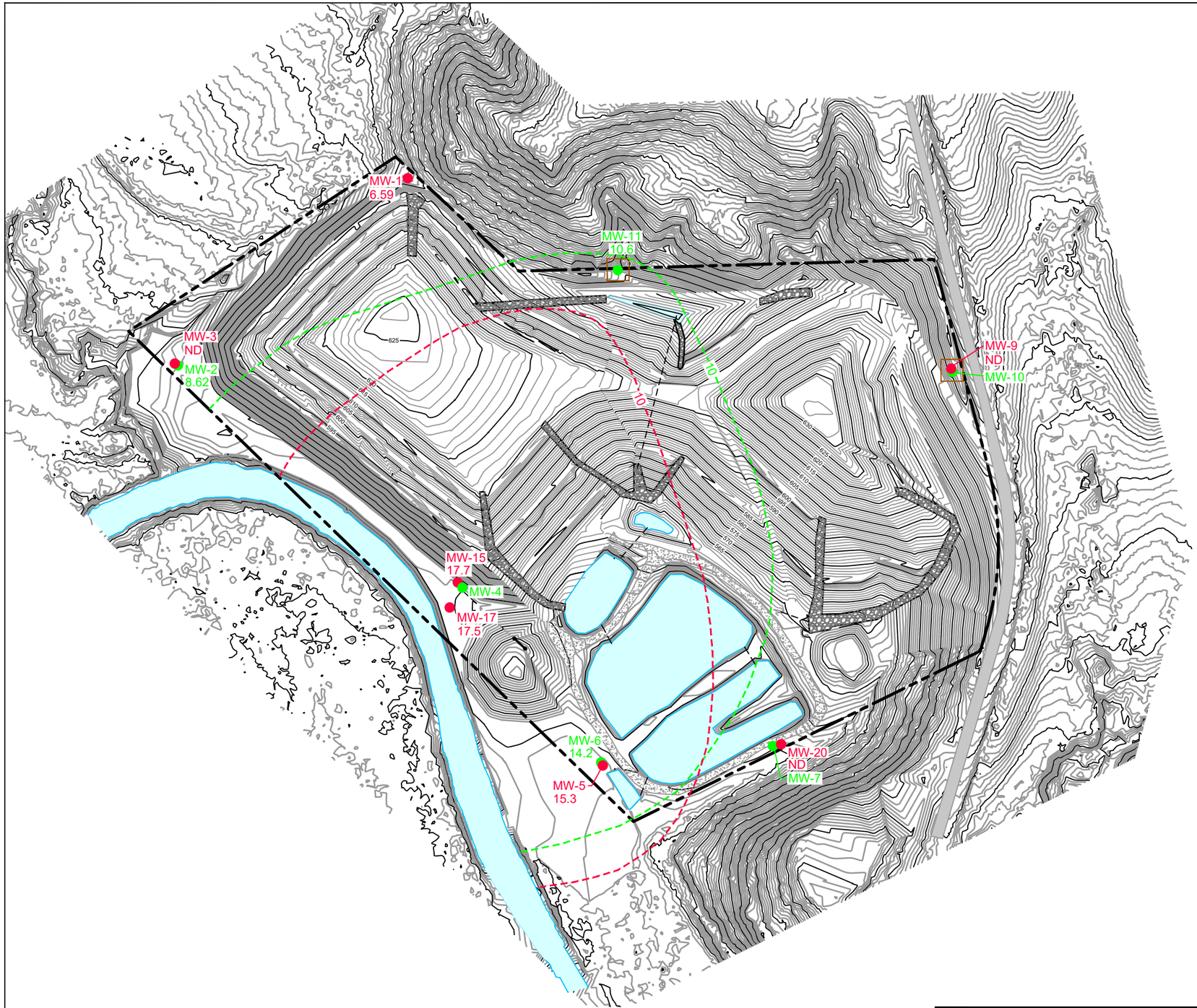

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 10.6 CHLORIDE CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

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2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

CHLORIDE SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 8

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D108_DE-007.dwg
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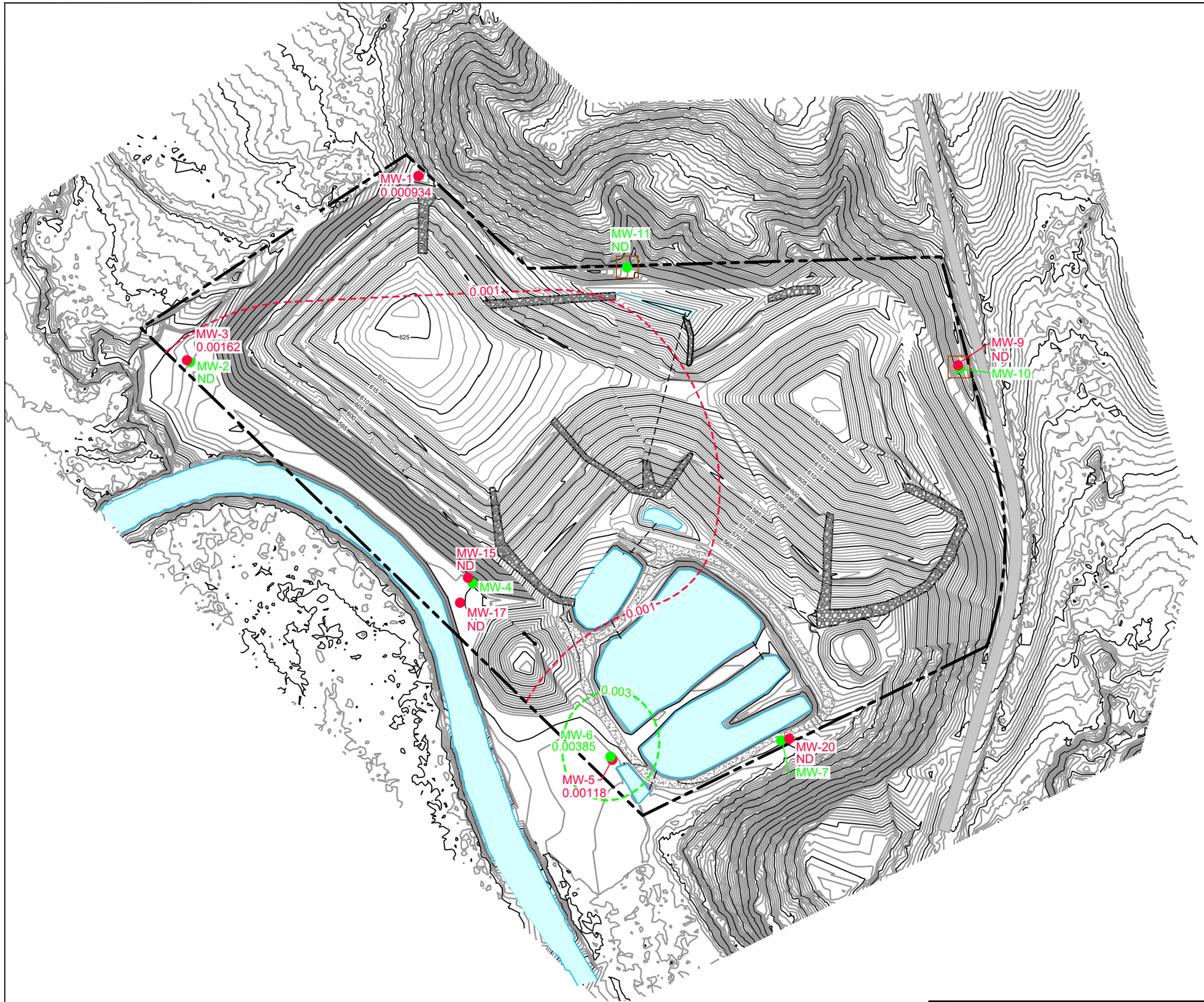

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 0.00118 — COBALT CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

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2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

COBALT SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 9

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D109_DE-007.dwg
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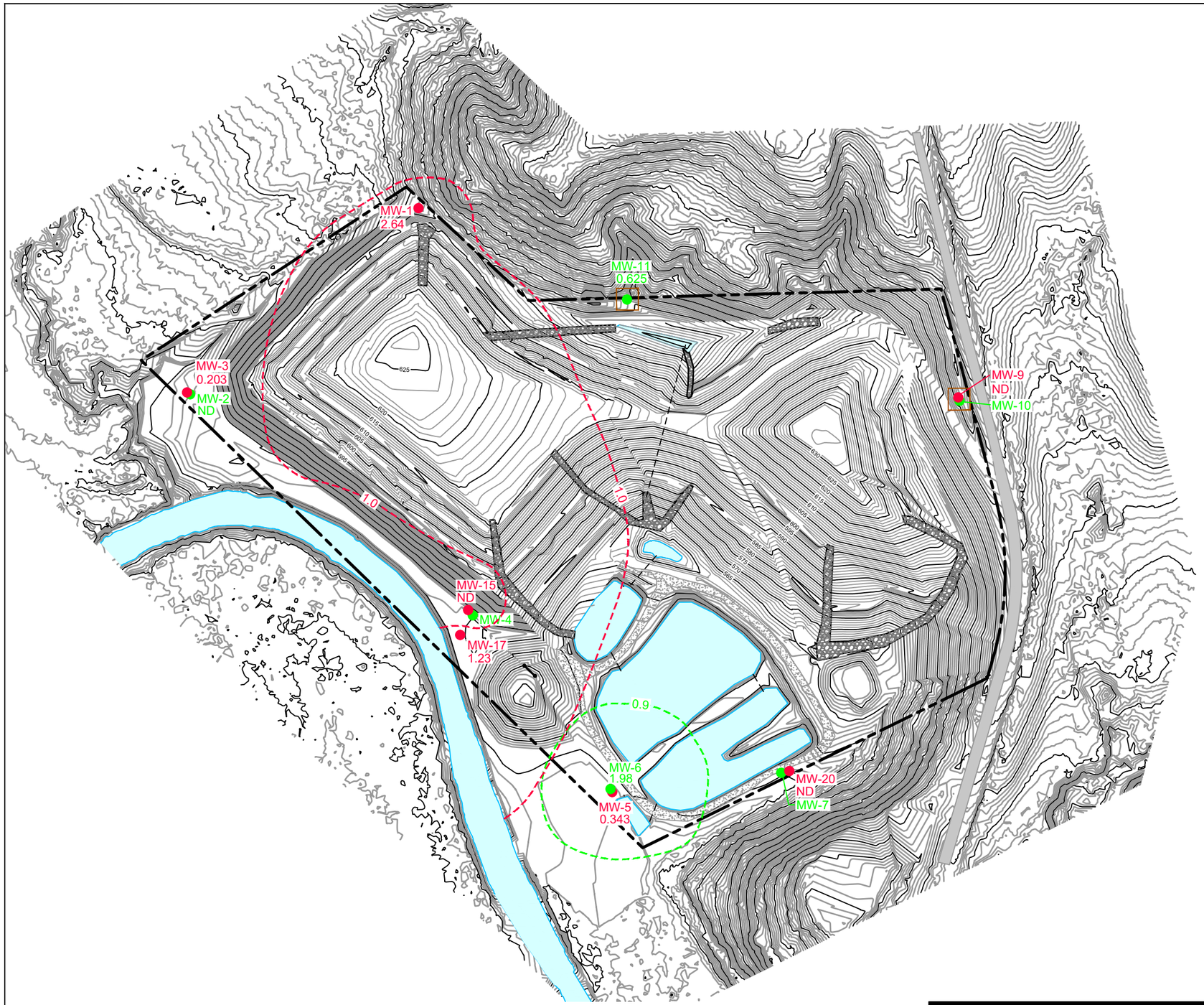

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 1.98 IRON CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

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2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

IRON SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 10

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D110_DE-007.dwg
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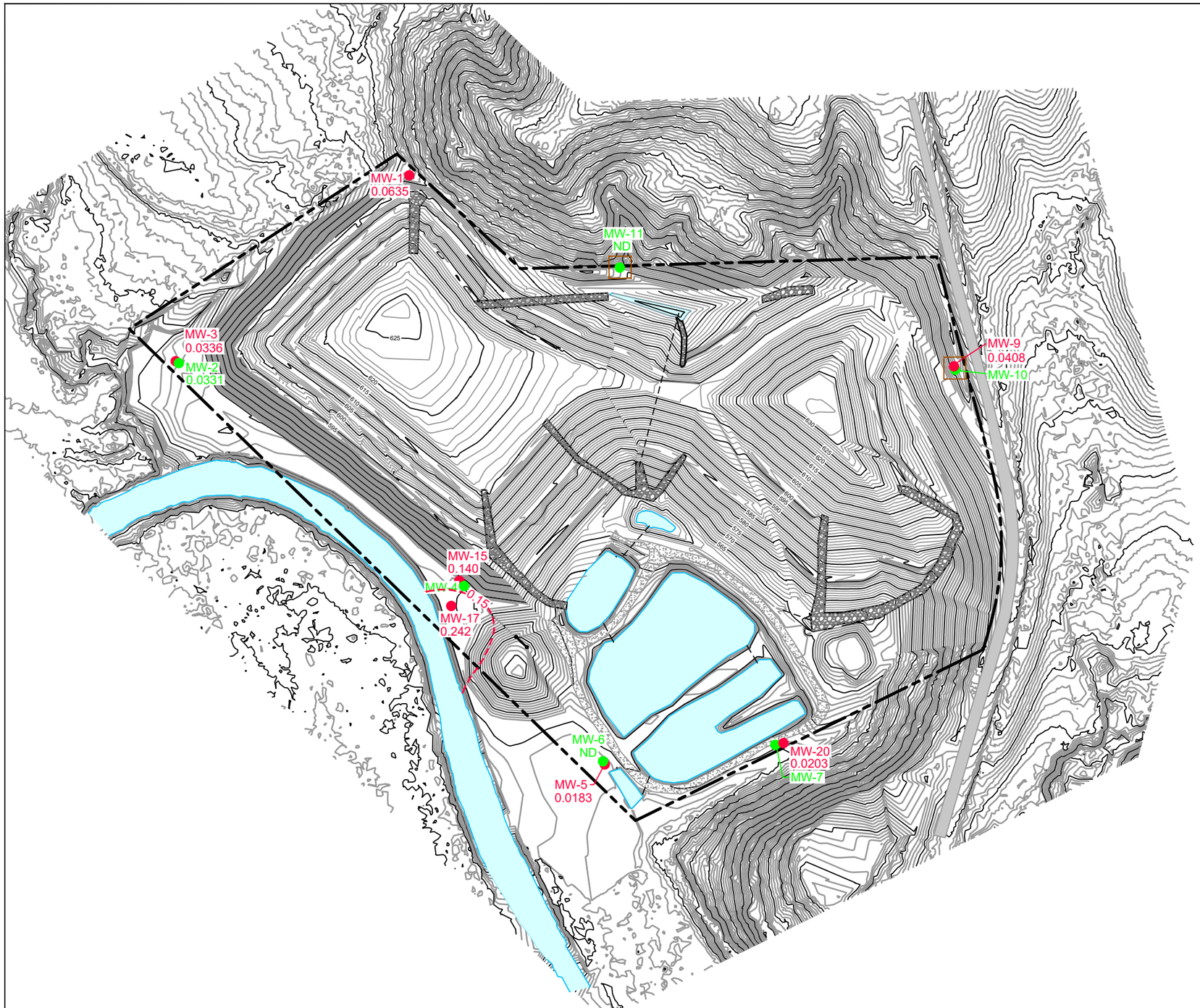

LEGEND:

- APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 0.0408 LITHIUM CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

LITHIUM SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 11

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D111_DE-007.dwg
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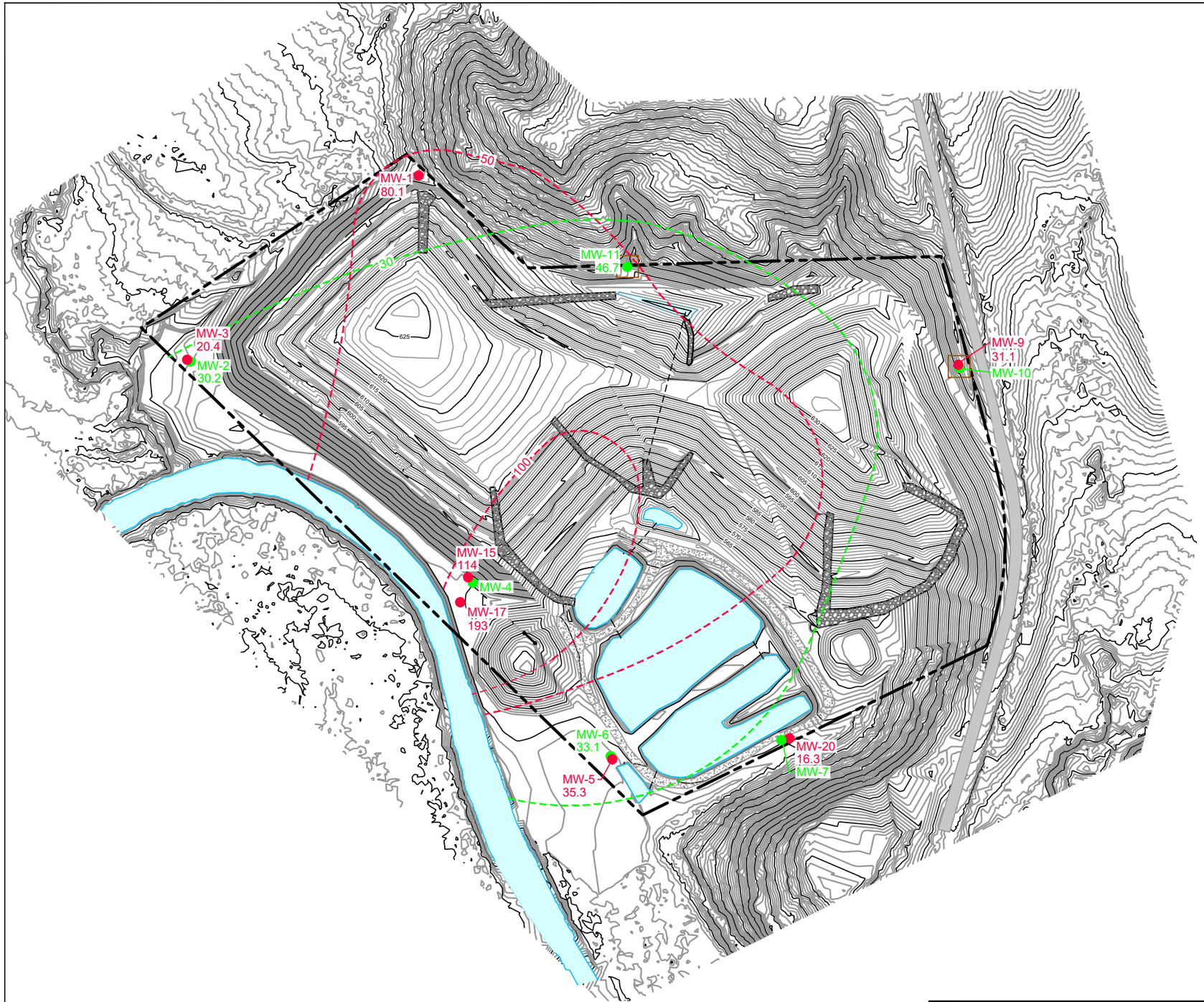

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- SURFACE WATER LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- 31.1 MAGNESIUM CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

MAGNESIUM SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 12

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D112_DE-007.dwg
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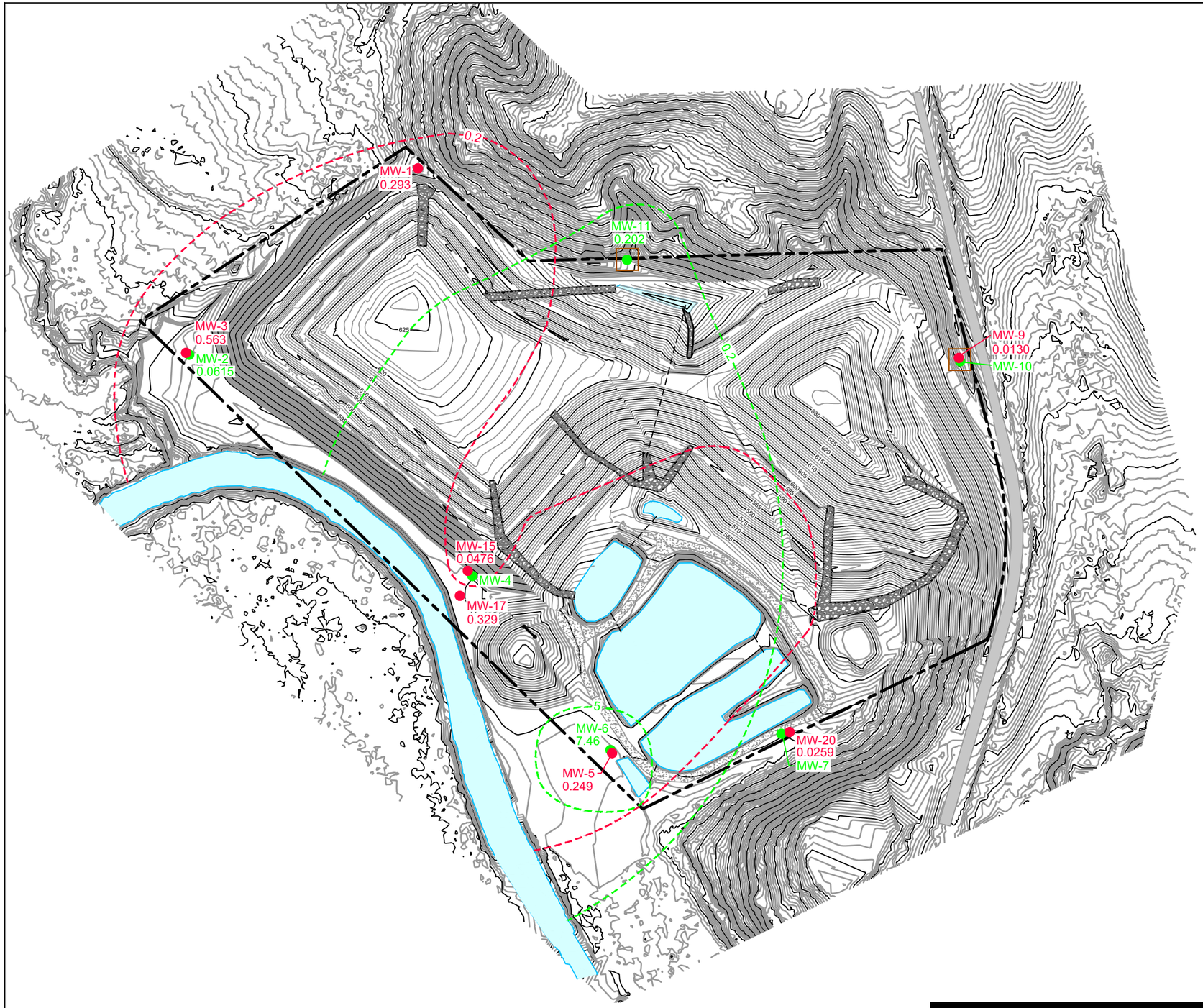

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- 0.0130 MANGANESE CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

MANGANESE SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 13

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D113_DE-007.dwg
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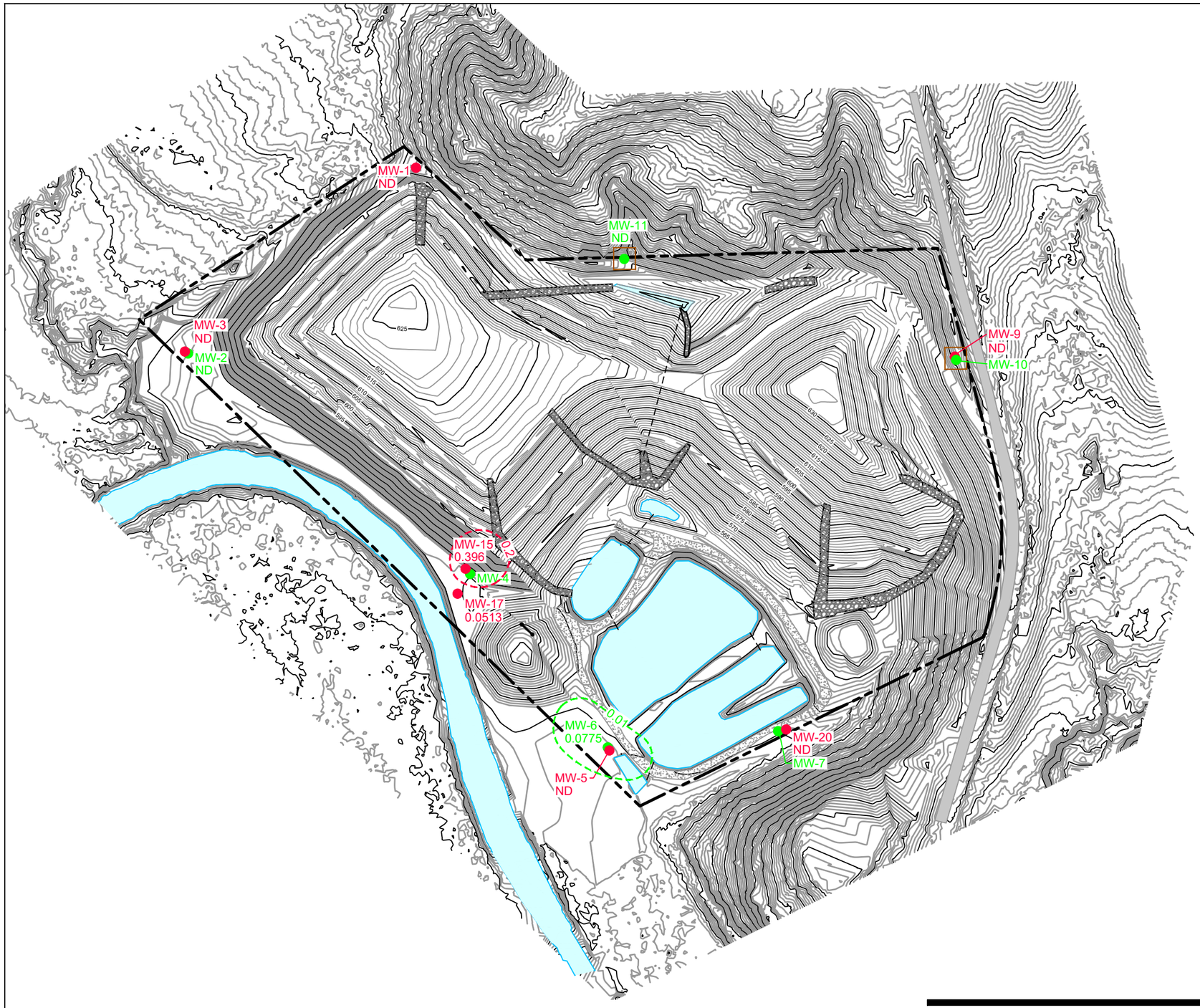

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- 0.396 MOLYBDENUM CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

MOLYBDENUM SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 14

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D114_DE-007.dwg
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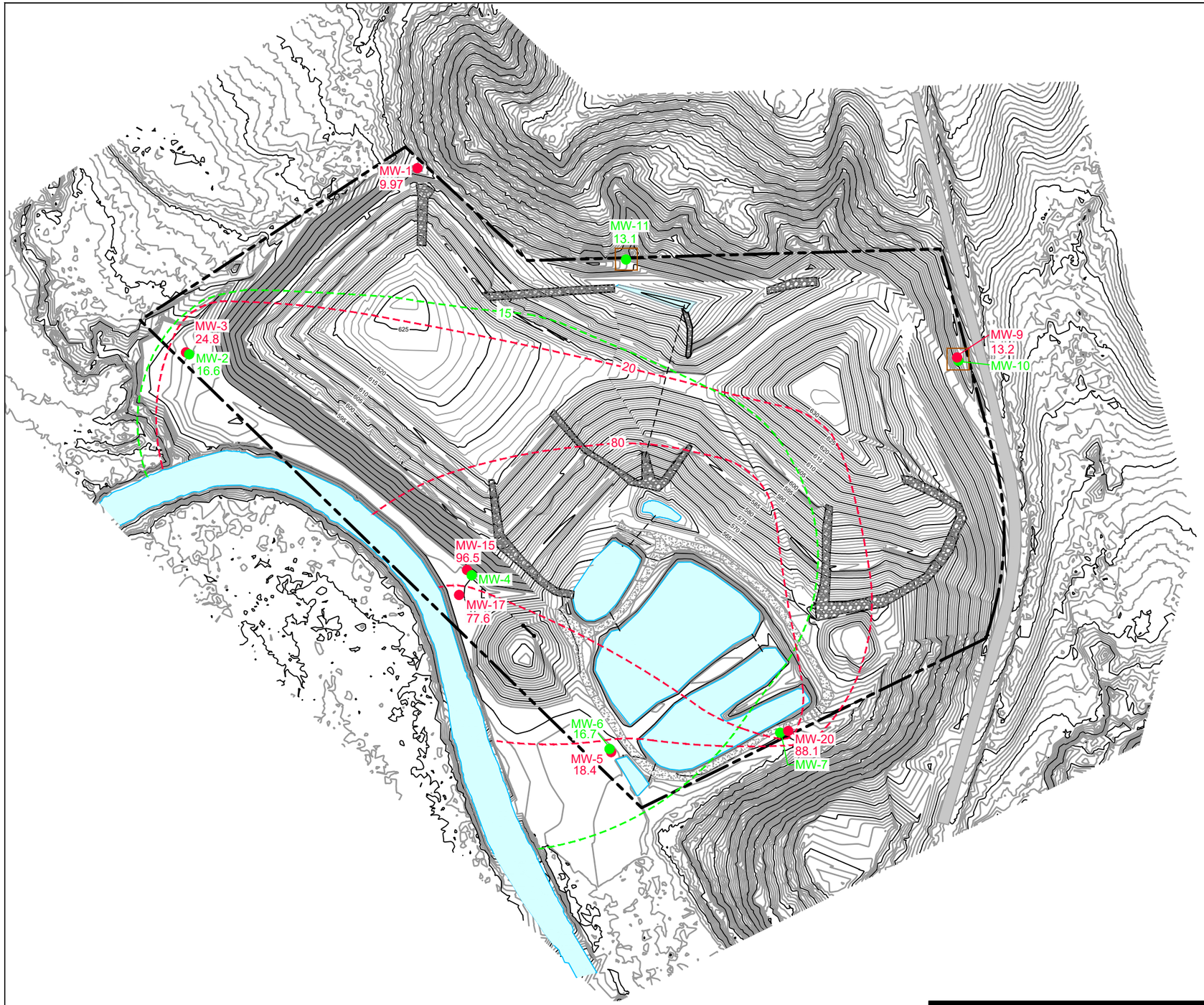

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 13.2 — SODIUM CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

SODIUM SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 15

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D115_DE-007.dwg
Plot Date: 18 November 2025 2:23 PM

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- 0.634 STRONTIUM CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

STRONTIUM SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 16

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D116_DE-007.dwg
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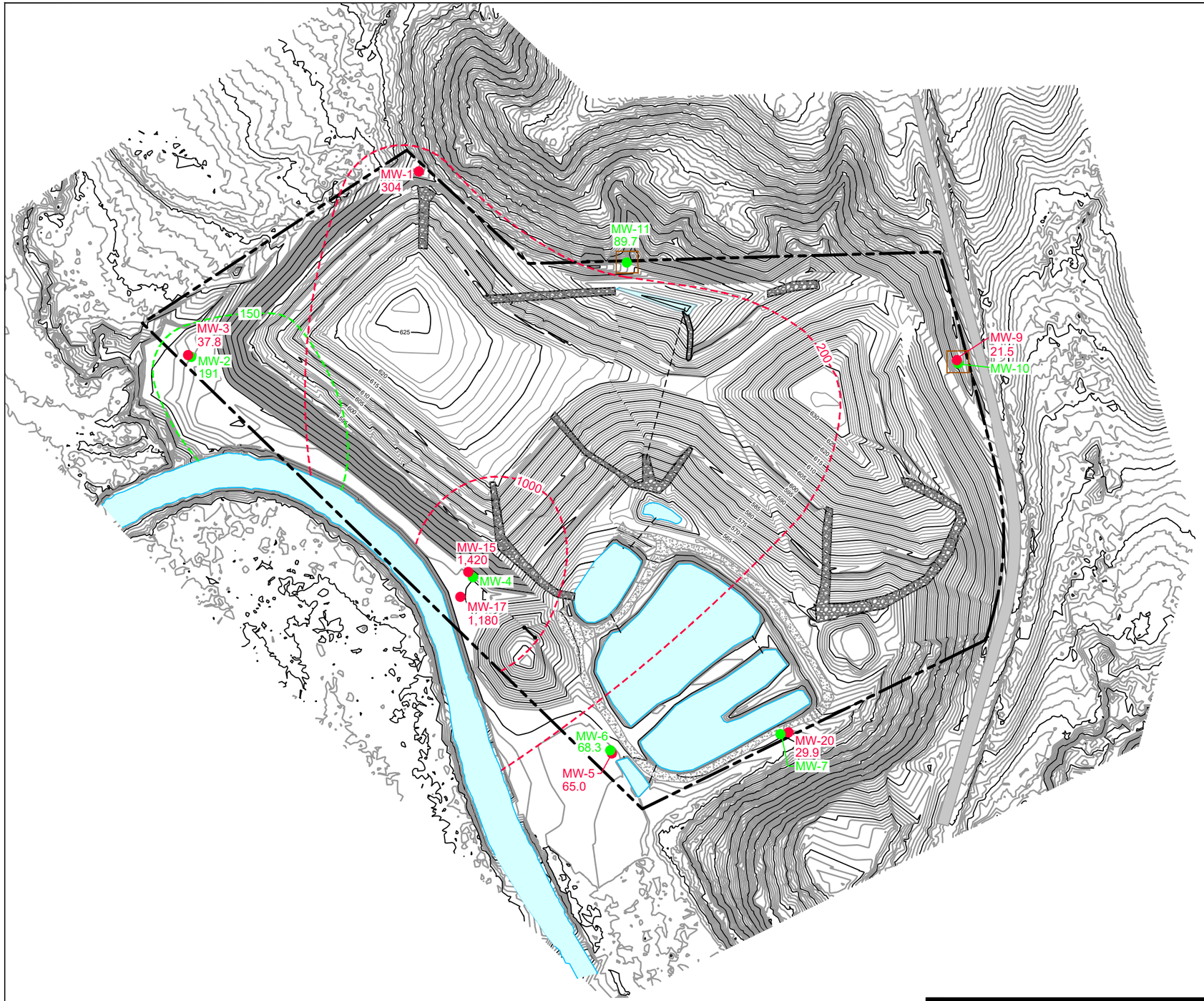

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 21.5 SULFATE CONCENTRATION (mg/L) OR NOT DETECTED (ND)
- UPPERMOST AQUIFER ESTIMATED ISOCONCENTRATION
- WATER TABLE AQUIFER ESTIMATED ISOCONCENTRATION

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

SULFATE SAMPLE RESULTS
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 17

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D117_DE-007.dwg
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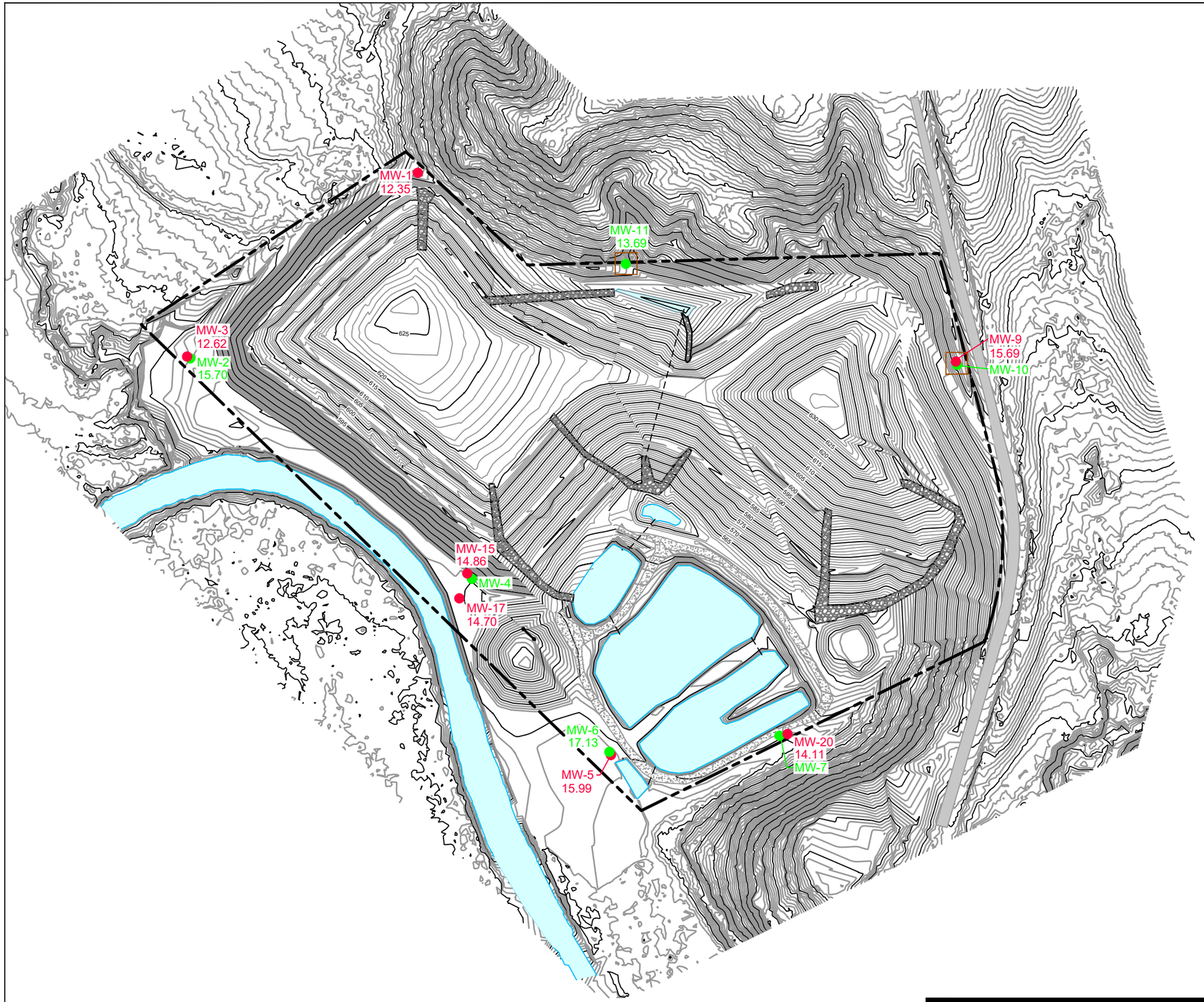

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- □ DENOTES UPGRADIENT LOCATION
- 15.69 TEMP (DEGREES CELSIUS) OR NOT RECORDED (NR)

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

TEMPERATURE VALUES
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 18

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D118_DE-007.dwg
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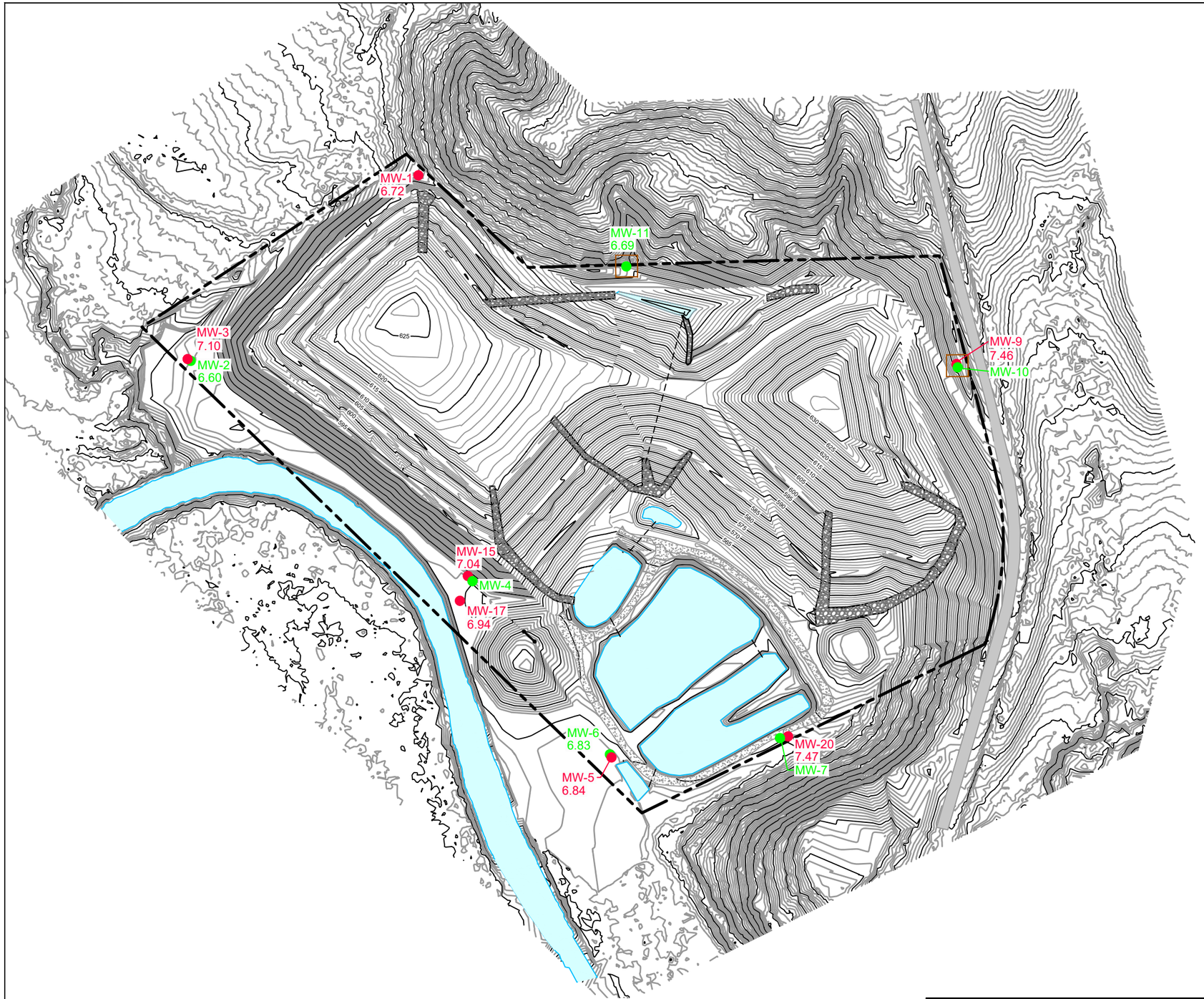

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 7.46 — pH CONCENTRATION (mg/L), NOT DETECTED (ND) OR NOT RECORDED (NR)

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

pH VALUES
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 19

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D119_DE-007.dwg
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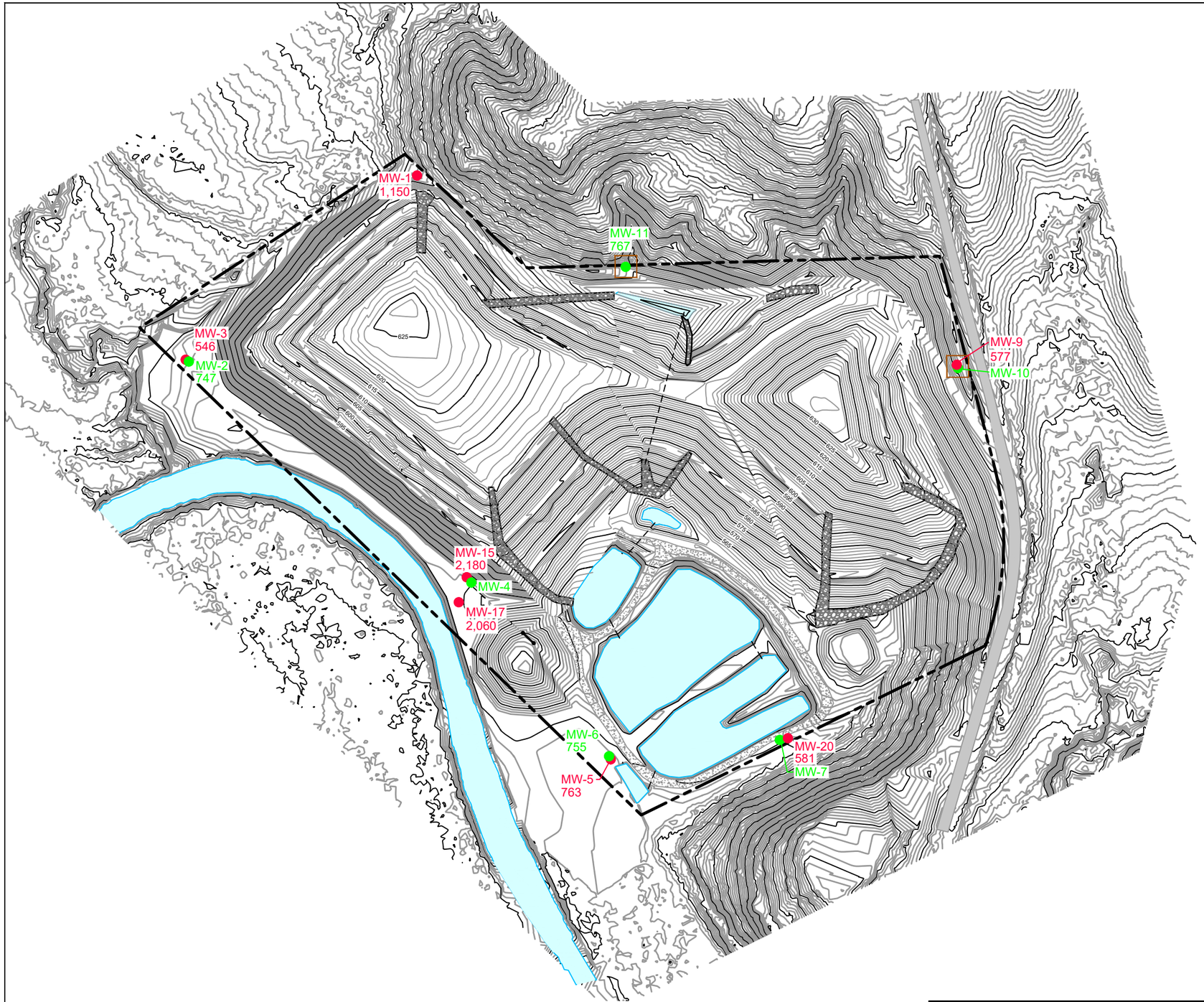

LEGEND:

- 650 — APPROXIMATE EXISTING GROUND SURFACE CONTOUR AND ELEVATION, FEET
- CULVERT
- PROPERTY LINE
- RIP-RAP
- PUBLIC ROAD
- MW-9 ● — UPPERMOST AQUIFER MONITORING WELL LOCATION AND DESIGNATION
- MW-10 ● — WATER TABLE MONITORING WELL LOCATION AND DESIGNATION
- DENOTES UPGRADIENT LOCATION
- 1,150 — SPECIFIC CONDUCTANCE (uS/cm), NOT DETECTED (ND) OR NOT RECORDED (NR)

DRAWING REFERENCE(S):

DATE OF SURVEY: MULTIPLE
SURVEYS BY: IOWA LIDAR PROJECT, XCEL ENGINEERING, AND SNYDER AND ASSOCIATES.

BASIS OF BEARING:

IOWA STATE PLANE SOUTH COORDINATE SYSTEM

NOTES:

1. LIDAR DATA WERE USED TO CREATE CONTOURS IN A 300' AREA OUTSIDE OF THE PROPERTY LINE. LIDAR DATA WERE OBTAINED FROM THE IOWA DEPARTMENT OF NATURAL RESOURCES. MAPPING WAS PERFORMED FROM 2008-2010 AND IS SHOWN IN THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ACCURACY OF LIDAR DATA STATED AS ±8 INCHES BY IOWA DEPARTMENT OF NATURAL RESOURCES.
2. MW-4, MW-7, MW-10 USED FOR WATER LEVEL MEASUREMENT ONLY.

0 100 200 ft
1" = 200 ft
Coordinate System:
IOWA STATE PLANE SOUTH

N

GHD

CENTRAL IOWA POWER COOPERATIVE
CIPCO FAIR STATION MONOFILL
ANNUAL WATER QUALITY REPORT

SPECIFIC CONDUCTANCE VALUES
OCTOBER 2025

Project No. **12560436**
Date **November 2025**

FIGURE 20

Filename: N:\US\Des Moines\Projects\563\12560436\Digital_Design\ACAD\Figures\RPT007\12560436-GHD-00-00-RPT-EN-D120_DE-007.dwg
Plot Date: 18 November 2025 4:51 PM

Appendices

Appendix A

Monitoring Forms

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-1** Upgradient **X**
Downgradient

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **588.13 ft** Ground Elevation **587.23 ft**
Depth of Well **36.27 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**9:15**	**22.42 ft**	**565.71 ft**
* After Purging	**10/16/2025**	**10:00**	**22.42 ft**	**565.71 ft**
* Before Sampling	**10/16/2025**	**10:00**	**22.42 ft**	**565.71 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **1.22 gallons**
No. of Well Volumes (based on current water level) **0.54 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Overcast**
Field Measurements (after stabilization)
Temperature **12.35** Units **°C**
Equipment Used **Aquatroll 500**
pH **6.72**
Equipment Used **Aquatroll 500**
Specific Cond. **1,146** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 201.7 DO: 0.12 Turb.: 1.42 Sample Time: 10/16/2025 10:00**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 9:28:10 AM
Project: CIPCO-MW-1 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 25 ft** **Total Depth: 35 ft** **Initial Depth to Water: 22.42 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 35 ft** **Pump Intake From TOC: 30 ft** **Estimated Total Volume Pumped: 4625 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
55° overcast

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10 %	+/- 10	+/- 0.33	
10/16/2025 9:28 AM	00:00	6.775 pH	12.81 °C	1,041 µS/cm	0.588 mg/L	16.05 NTU	217.2 mV	22.42 ft	300.0 ml/min
10/16/2025 9:31 AM	03:05	6.740 pH	12.56 °C	1,055 µS/cm	0.319 mg/L	10.98 NTU	213.5 mV	22.42 ft	300.0 ml/min
10/16/2025 9:34 AM	06:10	6.722 pH	12.44 °C	1,096 µS/cm	0.212 mg/L	5.342 NTU	209.9 mV	22.42 ft	300.0 ml/min
10/16/2025 9:37 AM	09:15	6.712 pH	12.38 °C	1,130 µS/cm	0.168 mg/L	1.589 NTU	207.1 mV	22.42 ft	300.0 ml/min
10/16/2025 9:40 AM	12:20	6.712 pH	12.37 °C	1,143 µS/cm	0.140 mg/L	0.563 NTU	204.4 mV	22.42 ft	300.0 ml/min
10/16/2025 9:43 AM	15:25	6.719 pH	12.35 °C	1,146 µS/cm	0.123 mg/L	1.417 NTU	201.7 mV	22.42 ft	300.0 ml/min

Samples

Sample ID:	Description:
Mw-1	ST1000

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-2** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **559.43 ft** Ground Elevation **557.67 ft**
Depth of Well **12.95 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**14:10**	**7.51 ft**	**551.92 ft**
* After Purging	**10/16/2025**	**14:50**	**6.67 ft**	**552.76 ft**
* Before Sampling	**10/16/2025**	**14:50**	**6.67 ft**	**552.76 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **0.76 gallons**
No. of Well Volumes (based on current water level) **0.86 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Sunny**
Field Measurements (after stabilization)
Temperature **15.70** Units **°C**
Equipment Used **Aquatroll 500**
pH **6.60**
Equipment Used **Aquatroll 500**
Specific Cond. **747** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 65.1 DO: 1.73 Turb.: 5.31 Sample Time: 10/16/2025 14:50**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 2:32:02 PM
Project: CIPCO-MW-2 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 2.95 ft** **Total Depth: 12.95 ft** **Initial Depth to Water: 7.51 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 12.95 ft** **Pump Intake From TOC: 7.95 ft** **Estimated Total Volume Pumped: 2860 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: -0.84 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
65° sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.33	
10/16/2025 2:32 PM	00:00	6.840 pH	15.79 °C	761.3 µS/cm	1.110 mg/L	7.193 NTU	67.2 mV	6.510 ft	300.0 ml/min
10/16/2025 2:34 PM	02:23	6.567 pH	15.67 °C	759.5 µS/cm	1.126 mg/L	4.716 NTU	66.4 mV	6.670 ft	300.0 ml/min
10/16/2025 2:36 PM	04:46	6.589 pH	15.67 °C	739.7 µS/cm	1.671 mg/L	5.047 NTU	65.4 mV	6.670 ft	300.0 ml/min
10/16/2025 2:39 PM	07:09	6.595 pH	15.57 °C	743.1 µS/cm	1.776 mg/L	7.030 NTU	65.5 mV	6.670 ft	300.0 ml/min
10/16/2025 2:41 PM	09:32	6.601 pH	15.70 °C	746.9 µS/cm	1.728 mg/L	5.314 NTU	65.1 mV	6.670 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW-2	ST-1450

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-3** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **559.17 ft** Ground Elevation **556.69 ft**
Depth of Well **46.75 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**14:12**	**9.46 ft**	**549.71 ft**
* After Purging	**10/16/2025**	**15:40**	**9.46 ft**	**549.71 ft**
* Before Sampling	**10/16/2025**	**15:40**	**9.46 ft**	**549.71 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **3 gallons**
No. of Well Volumes (based on current water level) **0.49 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Sunny**
Field Measurements (after stabilization)
Temperature **12.62** Units **°C**
Equipment Used **Aquatroll 500**
pH **7.10**
Equipment Used **Aquatroll 500**
Specific Cond. **0** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 47.4 DO: 0.09 Turb.: 46.05 Sample Time: 10/16/2025 15:40**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 2:57:24 PM
Project: CIPCO-MW-3 (3)
Operator Name: Clint Oberbroeckling

Location Name: MW-3 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 36.5 ft** **Total Depth: 46.5 ft** **Initial Depth to Water: 9.46 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 46.5 ft** **Pump Intake From TOC: 41.5 ft** **Estimated Total Volume Pumped: 11385 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
65° sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.33	
10/16/2025 2:57 PM	00:00	7.466 pH	13.47 °C	474.0 µS/cm	0.310 mg/L	439.1 NTU	53.7 mV	9.460 ft	300.0 ml/min
10/16/2025 3:00 PM	03:27	7.153 pH	13.22 °C	478.4 µS/cm	0.352 mg/L	241.1 NTU	53.4 mV	9.460 ft	300.0 ml/min
10/16/2025 3:04 PM	06:54	7.129 pH	13.19 °C	489.9 µS/cm	0.312 mg/L	174.3 NTU	53.1 mV	9.460 ft	300.0 ml/min
10/16/2025 3:07 PM	10:21	7.113 pH	13.13 °C	500.8 µS/cm	0.253 mg/L	108.9 NTU	52.5 mV	9.460 ft	300.0 ml/min
10/16/2025 3:11 PM	13:48	7.113 pH	13.06 °C	509.6 µS/cm	0.197 mg/L	94.51 NTU	51.6 mV	9.460 ft	300.0 ml/min
10/16/2025 3:14 PM	17:15	7.109 pH	12.92 °C	518.2 µS/cm	0.167 mg/L	67.11 NTU	50.9 mV	9.460 ft	300.0 ml/min
10/16/2025 3:18 PM	20:42	7.106 pH	12.79 °C	524.2 µS/cm	0.146 mg/L	56.63 NTU	50.2 mV	9.460 ft	300.0 ml/min
10/16/2025 3:21 PM	24:09	7.099 pH	12.75 °C	530.0 µS/cm	0.128 mg/L	55.06 NTU	49.7 mV	9.460 ft	300.0 ml/min
10/16/2025 3:25 PM	27:36	7.110 pH	12.79 °C	532.5 µS/cm	0.116 mg/L	101.6 NTU	48.5 mV	9.460 ft	300.0 ml/min
10/16/2025 3:28 PM	31:03	7.110 pH	12.72 °C	534.1 µS/cm	0.111 mg/L	57.66 NTU	48.0 mV	9.460 ft	300.0 ml/min
10/16/2025 3:31 PM	34:30	7.106 pH	12.69 °C	539.7 µS/cm	0.098 mg/L	53.39 NTU	47.6 mV	9.460 ft	300.0 ml/min
10/16/2025 3:35 PM	37:57	7.098 pH	12.62 °C	545.6 µS/cm	0.087 mg/L	46.05 NTU	47.4 mV	9.460 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW-3	ST-1540

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-4** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **556.92 ft** Ground Elevation **555.34 ft**
Depth of Well **10.45 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**9.33 ft**	**547.59 ft**
* After Purging			
* Before Sampling			

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **Water Level Only**
No. of Well Volumes (based on current water level)
Was well pumped/bailed dry?

Equipment used:
Bailer type Dedicated Bailer
Pump type Dedicated Pump
If not dedicated, method of cleaning

*D. FIELD MEASUREMENT

Weather Conditions
Field Measurements (after stabilization)
Temperature Units
Equipment Used **Aquatroll 500**
pH
Equipment Used **Aquatroll 500**
Specific Cond. Units
Equipment Used **Aquatroll 500**

Comments: **No sample**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-5** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **555.54 ft** Ground Elevation **553.24 ft**
Depth of Well **28.50 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**11:22**	**6.01 ft**	**549.53 ft**
* After Purging	**10/16/2025**	**12:15**	**6.01 ft**	**549.53 ft**
* Before Sampling	**10/16/2025**	**12:15**	**6.01 ft**	**549.53 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **3.3 gallons**
No. of Well Volumes (based on current water level) **0.90 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Sunny**
Field Measurements (after stabilization)
Temperature **15.99** Units **°C**
Equipment Used **Aquatroll 500**
pH **6.84**
Equipment Used **Aquatroll 500**
Specific Cond. **4** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 45.6 DO: 3.64 Turb.: 2.43 Sample Time: 10/16/2025 12:15**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 11:25:16 AM
Project: CIPCO-MW-5 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-5 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 18.5 ft** **Total Depth: 28.5 ft** **Initial Depth to Water: 6.01 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 28.5 ft** **Pump Intake From TOC: 23.5 ft** **Estimated Total Volume Pumped: 12485 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
65 sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.33	
10/16/2025 11:25 AM	00:00	7.255 pH	18.12 °C	734.7 µS/cm	1.631 mg/L	6.469 NTU	73.8 mV	6.010 ft	300.0 ml/min
10/16/2025 11:28 AM	02:53	6.914 pH	18.23 °C	740.5 µS/cm	1.124 mg/L	0.952 NTU	66.5 mV	6.010 ft	300.0 ml/min
10/16/2025 11:31 AM	05:46	6.983 pH	19.31 °C	748.5 µS/cm	1.229 mg/L	0.064 NTU	51.8 mV	6.010 ft	300.0 ml/min
10/16/2025 11:33 AM	08:39	6.988 pH	20.23 °C	753.1 µS/cm	1.267 mg/L	0.023 NTU	43.8 mV	6.010 ft	300.0 ml/min
10/16/2025 11:36 AM	11:32	6.976 pH	21.10 °C	754.0 µS/cm	1.322 mg/L	0.095 NTU	38.7 mV	6.010 ft	300.0 ml/min
10/16/2025 11:39 AM	14:25	6.887 pH	22.51 °C	750.5 µS/cm	1.230 mg/L	1.686 NTU	39.5 mV	6.010 ft	300.0 ml/min
10/16/2025 11:42 AM	17:18	6.509 pH	16.74 °C	739.6 µS/cm	0.700 mg/L	6.270 NTU	57.1 mV	6.010 ft	300.0 ml/min
10/16/2025 11:45 AM	20:11	6.469 pH	16.37 °C	740.7 µS/cm	1.309 mg/L	6.136 NTU	57.4 mV	6.010 ft	300.0 ml/min
10/16/2025 11:48 AM	23:04	6.663 pH	16.44 °C	742.9 µS/cm	1.925 mg/L	4.922 NTU	46.3 mV	6.010 ft	300.0 ml/min
10/16/2025 11:49 AM	24:19	7.061 pH	16.44 °C	745.0 µS/cm	2.171 mg/L	7.389 NTU	44.0 mV	6.010 ft	300.0 ml/min
10/16/2025 11:52 AM	27:12	6.754 pH	16.20 °C	749.5 µS/cm	2.593 mg/L	3.994 NTU	42.4 mV	6.010 ft	300.0 ml/min
10/16/2025 11:55 AM	30:05	6.786 pH	16.20 °C	753.5 µS/cm	2.930 mg/L	3.336 NTU	41.7 mV	6.010 ft	300.0 ml/min

10/16/2025 11:58 AM	32:58	6.802 pH	16.04 °C	757.5 µS/cm	3.206 mg/L	3.167 NTU	42.7 mV	6.010 ft	300.0 ml/min
10/16/2025 12:01 PM	35:51	6.820 pH	16.09 °C	759.8 µS/cm	3.412 mg/L	3.363 NTU	43.2 mV	6.010 ft	300.0 ml/min
10/16/2025 12:04 PM	38:44	6.823 pH	15.96 °C	761.4 µS/cm	3.547 mg/L	2.520 NTU	44.8 mV	6.010 ft	300.0 ml/min
10/16/2025 12:06 PM	41:37	6.836 pH	15.99 °C	763.2 µS/cm	3.644 mg/L	2.432 NTU	45.6 mV	6.010 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW-5	ST-1215

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-6** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **555.88 ft** Ground Elevation **553.47 ft**
Depth of Well **15.10 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**10:50**	**7.25 ft**	**548.63 ft**
* After Purging	**10/16/2025**	**11:15**	**7.25 ft**	**548.63 ft**
* Before Sampling	**10/16/2025**	**11:15**	**7.25 ft**	**548.63 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **1.1 gallons**
No. of Well Volumes (based on current water level) **0.86 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Overcast**
Field Measurements (after stabilization)
Temperature **17.13** Units **°C**
Equipment Used **Aquatroll 500**
pH **6.83**
Equipment Used **Aquatroll 500**
Specific Cond. **755** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 131.4 DO: 0.18 Turb.: 2.81 Sample Time: 10/16/2025 11:15**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 10:56:37 AM
Project: CIPCO - MW-6 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-6 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 5.08 ft** **Total Depth: 15.08 ft** **Initial Depth to Water: 7.25 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 15.08 ft** **Pump Intake From TOC: 10.08 ft** **Estimated Total Volume Pumped: 4160 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
65° overcast

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.33	
10/16/2025 10:56 AM	00:00	6.935 pH	17.18 °C	725.8 µS/cm	0.421 mg/L	43.74 NTU	138.9 mV	7.250 ft	300.0 ml/min
10/16/2025 10:59 AM	02:27	6.878 pH	17.16 °C	731.5 µS/cm	0.201 mg/L	14.27 NTU	137.1 mV	7.250 ft	300.0 ml/min
10/16/2025 11:01 AM	04:54	6.866 pH	17.14 °C	737.8 µS/cm	0.167 mg/L	6.025 NTU	137.7 mV	7.520 ft	300.0 ml/min
10/16/2025 11:03 AM	06:31	6.827 pH	17.14 °C	740.5 µS/cm	0.129 mg/L	17.91 NTU	140.9 mV	7.250 ft	300.0 ml/min
10/16/2025 11:05 AM	08:58	6.865 pH	17.17 °C	744.0 µS/cm	0.113 mg/L	6.787 NTU	136.0 mV	7.250 ft	300.0 ml/min
10/16/2025 11:08 AM	11:25	6.849 pH	17.14 °C	748.4 µS/cm	0.092 mg/L	4.570 NTU	134.3 mV	7.250 ft	300.0 ml/min
10/16/2025 11:10 AM	13:52	6.825 pH	17.13 °C	754.5 µS/cm	0.178 mg/L	2.805 NTU	131.4 mV	7.250 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW-6	ST-1115

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-7** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **556.77 ft** Ground Elevation **555.05 ft**
Depth of Well **18.19 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**2.43 ft**	**554.34 ft**
* After Purging			
* Before Sampling			

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **Water Level Only**
No. of Well Volumes (based on current water level)
Was well pumped/bailed dry?

Equipment used:
Bailer type Dedicated Bailer
Pump type Dedicated Pump
If not dedicated, method of cleaning

*D. FIELD MEASUREMENT

Weather Conditions
Field Measurements (after stabilization)
Temperature Units
Equipment Used **Aquatroll 500**
pH
Equipment Used **Aquatroll 500**
Specific Cond. Units
Equipment Used

Comments: **No sample**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-9** Upgradient **X**
Downgradient

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **629.13 ft** Ground Elevation **627.04 ft**
Depth of Well **118.67 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**15:58**	**30.04 ft**	**599.09 ft**
* After Purging	**10/16/2025**	**16:10**	**30.04 ft**	**599.09 ft**
* Before Sampling	**10/16/2025**	**16:10**	**30.04 ft**	**599.09 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **not full purge**
No. of Well Volumes (based on current water level)
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Disposable Polyethylene Dedicated Bailer Yes
Pump type Dedicated Pump
If not dedicated, method of cleaning

*D. FIELD MEASUREMENT

Weather Conditions **Sunny**
Field Measurements (after stabilization)
Temperature **15.69** Units **°C**
Equipment Used **Aquatroll 500**
pH **7.46**
Equipment Used **Aquatroll 500**
Specific Cond. **577** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 46.7 DO: 7.97 Turb.: 2.51 Sample Time: 10/16/2025 16:10**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 4:10:03 PM
Project: CIPCO-MW-9 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-9 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 108.65 ft** **Total Depth: 118.65 ft** **Initial Depth to Water: 30.04 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 118.65 ft** **Pump Intake From TOC: 113.65 ft** **Estimated Total Volume Pumped: 0 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:
Top cut sample then collect grab for water quality

Weather Conditions:
65° sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10 %	+/- 10	+/- 5	
10/16/2025 4:10 PM	00:00	7.459 pH	15.69 °C	577.4 µS/cm	7.965 mg/L	2.514 NTU	46.7 mV	915.6 cm	300.0 ml/min

Samples

Sample ID:	Description:
MW-9	ST-1610

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-10** Upgradient **X**
Downgradient

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **629.39 ft** Ground Elevation **627.21 ft**
Depth of Well **32.25 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**19.53 ft**	**609.86 ft**
* After Purging			
* Before Sampling			

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **Water Level Only**
No. of Well Volumes (based on current water level)
Was well pumped/bailed dry?

Equipment used:
Bailer type Dedicated Bailer
Pump type Dedicated Pump
If not dedicated, method of cleaning

*D. FIELD MEASUREMENT

Weather Conditions
Field Measurements (after stabilization)
Temperature Units
Equipment Used **Aquatroll 500**
pH
Equipment Used **Aquatroll 500**
Specific Cond. Units
Equipment Used

Comments: **No sample**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-11** Upgradient **X**
Downgradient

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **587.99 ft** Ground Elevation **586.18 ft**
Depth of Well **20.40 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**8:30**	**9.30 ft**	**578.69 ft**
* After Purging	**10/16/2025**	**9:00**	**6.45 ft**	**581.54 ft**
* Before Sampling	**10/16/2025**	**9:00**	**6.45 ft**	**581.54 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **1.38 gallons**
No. of Well Volumes (based on current water level) **0.76 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Overcast**
Field Measurements (after stabilization)
Temperature **13.69** Units **°C**
Equipment Used **Aquatroll 500**
pH **6.69**
Equipment Used **Aquatroll 500**
Specific Cond. **767** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 167.5 DO: 0.14 Turb.: 28.65 Sample Time: 10/16/2025 9:00**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 8:42:08 AM
Project: CIPCO-MW-11 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-11 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 10.4 ft** **Total Depth: 20.4 ft** **Initial Depth to Water: 9.3 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 20.4 ft** **Pump Intake From TOC: 15.4 ft** **Estimated Total Volume Pumped: 5207.5 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: -2.85 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
550 overcast

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10 %	+/- 10	+/- 0.33	
10/16/2025 8:42 AM	00:00	6.154 pH	15.81 °C	800.1 µS/cm	7.028 mg/L	49.15 NTU	199.2 mV	6.300 ft	150.0 ml/min
10/16/2025 8:44 AM	02:37	6.354 pH	14.55 °C	778.9 µS/cm	0.805 mg/L	49.07 NTU	186.8 mV	6.450 ft	300.0 ml/min
10/16/2025 8:47 AM	05:14	6.492 pH	14.19 °C	772.8 µS/cm	0.287 mg/L	44.98 NTU	179.8 mV	6.450 ft	300.0 ml/min
10/16/2025 8:49 AM	07:51	6.551 pH	13.81 °C	770.6 µS/cm	0.211 mg/L	38.53 NTU	176.9 mV	6.450 ft	300.0 ml/min
10/16/2025 8:52 AM	10:28	6.596 pH	13.76 °C	768.8 µS/cm	0.181 mg/L	32.09 NTU	173.2 mV	6.450 ft	300.0 ml/min
10/16/2025 8:55 AM	13:05	6.629 pH	13.75 °C	768.1 µS/cm	0.162 mg/L	36.31 NTU	171.8 mV	6.450 ft	300.0 ml/min
10/16/2025 8:57 AM	15:42	6.655 pH	13.72 °C	767.7 µS/cm	0.159 mg/L	31.47 NTU	170.0 mV	6.450 ft	300.0 ml/min
10/16/2025 9:00 AM	18:19	6.694 pH	13.65 °C	767.2 µS/cm	0.133 mg/L	38.07 NTU	166.8 mV	6.450 ft	300.0 ml/min
10/16/2025 9:00 AM	18:40	6.686 pH	13.69 °C	766.9 µS/cm	0.135 mg/L	28.65 NTU	167.5 mV	6.450 ft	300.0 ml/min

Samples

Sample ID:	Description:

MW-11	St-9:00

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-15** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **558.65 ft** Ground Elevation **556.33 ft**
Depth of Well **29.20 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**13:35**	**12.51 ft**	**546.14 ft**
* After Purging	**10/16/2025**	**14:00**	**14.00 ft**	**544.65 ft**
* Before Sampling	**10/16/2025**	**14:00**	**14.00 ft**	**544.65 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **0.69 gallons**
No. of Well Volumes (based on current water level) **0.25 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Sunny**
Field Measurements (after stabilization)
Temperature **14.86** Units **°C**
Equipment Used **Aquatroll 500**
pH **7.04**
Equipment Used **Aquatroll 500**
Specific Cond. **2,176** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 28.7 DO: 0.28 Turb.: 0.17 Sample Time: 10/16/2025 14:00**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 1:43:48 PM
Project: CIPCO-MW-15 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-15 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 10.4 ft** **Total Depth: 29.15 ft** **Initial Depth to Water: 12.51 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 29.15 ft** **Pump Intake From TOC: 19.15 ft** **Estimated Total Volume Pumped: 2610 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 1.49 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
65° sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.33	
10/16/2025 1:43 PM	00:00	7.411 pH	14.73 °C	2,174 µS/cm	0.715 mg/L	1.219 NTU	34.8 mV	12.51 ft	300.0 ml/min
10/16/2025 1:46 PM	02:54	7.055 pH	14.41 °C	2,176 µS/cm	0.288 mg/L	1.685 NTU	31.8 mV	14.00 ft	300.0 ml/min
10/16/2025 1:49 PM	05:48	7.043 pH	14.71 °C	2,176 µS/cm	0.372 mg/L	1.376 NTU	29.9 mV	14.00 ft	300.0 ml/min
10/16/2025 1:52 PM	08:42	7.035 pH	14.86 °C	2,176 µS/cm	0.281 mg/L	0.170 NTU	28.7 mV	14.00 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW-15	ST-1400

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-17** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **557.32 ft** Ground Elevation **554.53 ft**
Depth of Well **20.35 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**13:00**	**12.74 ft**	**544.58 ft**
* After Purging	**10/16/2025**	**13:30**	**12.74 ft**	**544.58 ft**
* Before Sampling	**10/16/2025**	**13:30**	**12.74 ft**	**544.58 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **1.24 gallons**
No. of Well Volumes (based on current water level) **1.00 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Sunny**
Field Measurements (after stabilization)
Temperature **14.70** Units **°C**
Equipment Used **Aquatroll 500**
pH **6.94**
Equipment Used **Aquatroll 500**
Specific Cond. **2,063** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 51.3 DO: 1.27 Turb.: 0.94 Sample Time: 10/16/2025 13:30**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 1:08:07 PM
Project: CIPCO-MW-17 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-17 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 10.35 ft** **Total Depth: 20.35 ft** **Initial Depth to Water: 12.74 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 20.35 ft** **Pump Intake From TOC: 15.35 ft** **Estimated Total Volume Pumped: 4710 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 300 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
65° sunny

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 0.33	
10/16/2025 1:08 PM	00:00	7.017 pH	16.48 °C	2,301 µS/cm	1.310 mg/L	5.225 NTU	81.6 mV	12.74 ft	300.0 ml/min
10/16/2025 1:10 PM	02:37	6.877 pH	15.26 °C	2,327 µS/cm	0.625 mg/L	4.166 NTU	68.4 mV	12.74 ft	300.0 ml/min
10/16/2025 1:13 PM	05:14	6.925 pH	14.96 °C	2,226 µS/cm	0.873 mg/L	2.294 NTU	61.2 mV	12.74 ft	300.0 ml/min
10/16/2025 1:15 PM	07:51	6.920 pH	14.94 °C	2,160 µS/cm	1.047 mg/L	0.727 NTU	58.0 mV	12.74 ft	300.0 ml/min
10/16/2025 1:18 PM	10:28	6.923 pH	14.75 °C	2,121 µS/cm	1.125 mg/L	0.313 NTU	55.8 mV	12.74 ft	300.0 ml/min
10/16/2025 1:21 PM	13:05	6.929 pH	14.82 °C	2,088 µS/cm	1.176 mg/L	0.704 NTU	53.5 mV	12.74 ft	300.0 ml/min
10/16/2025 1:23 PM	15:42	6.943 pH	14.70 °C	2,063 µS/cm	1.272 mg/L	0.942 NTU	51.3 mV	12.74 ft	300.0 ml/min

Samples

Sample ID:	Description:
MW-17	ST-1330

FORM FOR
GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT

Site Name **CIPCO Ash Disposal Landfill** Permit No. **70-SDP-09-91P**

Monitoring Well/Piezometer No. **MW-20** Upgradient
Downgradient **X**

Name Of person sampling **Clint Oberbroeckling**

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/piezometer Properly Capped? **Yes** Standing Water or Litter? **No**
If no, explain If yes, explain

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Elevation: Top of inner well casing **558.92 ft** Ground Elevation **555.95 ft**
Depth of Well **44.39 ft** Inside Casing Diameter (inches) **2.0 in**
Equipment Used **Solinst Model 101 Water Level Probe**

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time		Depth to Groundwater	Groundwater Elevation
Before Purging	**10/16/2025**	**10:00**	**4.62 ft**	**554.30 ft**
* After Purging	**10/16/2025**	**10:35**	**7.01 ft**	**551.91 ft**
* Before Sampling	**10/16/2025**	**10:35**	**7.01 ft**	**551.91 ft**

*C. WELL PURGING

Quantity of Water Removed from Well (gallons) **0.35 gallons**
No. of Well Volumes (based on current water level) **0.05 well volumes**
Was well pumped/bailed dry? **No**

Equipment used:
Bailer type Dedicated Bailer
Pump type **Pneumatic Bladder** Dedicated Pump **No**
If not dedicated, method of cleaning **Replace bladder, rinse w/water, dedicated tubing**

*D. FIELD MEASUREMENT

Weather Conditions **Overcast**
Field Measurements (after stabilization)
Temperature **14.11** Units **°C**
Equipment Used **Aquatroll 500**
pH **7.47**
Equipment Used **Aquatroll 500**
Specific Cond. **581** Units **µS/cm**
Equipment Used **Aquatroll 500**

Comments: **ORP: 148.3 DO: 0.53 Turb.: 1.51 Sample Time: 10/16/2025 10:35**

Note: Attach Laboratory Report and 8-1/2" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations.

Low-Flow Test Report:

Test Date / Time: 10/16/2025 10:18:38 AM
Project: CIPCO-MW-20 (2)
Operator Name: Clint Oberbroeckling

Location Name: MW-20 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 34.4 ft** **Total Depth: 44.4 ft** **Initial Depth to Water: 4.62 ft**	**Pump Type: QED Sample PRO** **Tubing Type: Nylon- Double Bonded** **Tubing Inner Diameter: 0.25 in** **Tubing Length: 44.4 ft** **Pump Intake From TOC: 39.4 ft** **Estimated Total Volume Pumped: 1338.333 ml** **Flow Cell Volume: 130 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 2.39 ft**	**Instrument Used: Aqua TROLL 500** **Serial Number: 613885**

Test Notes:

Weather Conditions:
610 overcast

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 3 %	+/- 0.3	+/- 10	+/- 10	+/- 3	
10/16/2025 10:18 AM	00:00	7.431 pH	14.22 °C	582.7 µS/cm	0.382 mg/L	2.293 NTU	161.6 mV	4.620 ft	100.0 ml/min
10/16/2025 10:22 AM	03:23	7.410 pH	14.18 °C	582.2 µS/cm	0.410 mg/L	2.048 NTU	155.0 mV	7.010 ft	200.0 ml/min
10/16/2025 10:25 AM	06:46	7.409 pH	14.23 °C	581.5 µS/cm	0.478 mg/L	0.951 NTU	150.5 mV	7.010 ft	200.0 ml/min
10/16/2025 10:27 AM	08:23	7.472 pH	14.11 °C	581.4 µS/cm	0.529 mg/L	1.151 NTU	148.3 mV	7.010 ft	200.0 ml/min

Samples

Sample ID:	Description:
MW-20	ST-1035

Appendix B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Clint Oberbroeckling
GHD Services Inc.
11228 Aurora Avenue
Des Moines, Iowa 50322-7905

Generated 10/28/2025 3:53:05 PM

JOB DESCRIPTION

CIPCO Ash Landfill Project

JOB NUMBER

310-318398-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization

Generated
10/28/2025 3:53:05 PM

Authorized for release by
Zach Bindert, Senior Project Manager
Zach.Bindert@et.eurofinsus.com
(319)595-2016

Table of Contents

Job Narrative
310-318398-1

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

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

Receipt
The samples were received on 10/17/2025 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C.

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

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

Sample Summary

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-318398-1	MW-1	Water	10/16/25 10:00	10/17/25 16:15	Iowa
310-318398-2	MW-2	Water	10/16/25 14:50	10/17/25 16:15	Iowa
310-318398-3	MW-3	Water	10/16/25 15:40	10/17/25 16:15	Iowa
310-318398-4	MW-5	Water	10/16/25 12:15	10/17/25 16:15	Iowa
310-318398-5	MW-6	Water	10/16/25 11:15	10/17/25 16:15	Iowa
310-318398-6	MW-9	Water	10/16/25 16:10	10/17/25 16:15	Iowa
310-318398-7	MW-11	Water	10/16/25 09:00	10/17/25 16:15	Iowa
310-318398-8	MW-15	Water	10/16/25 14:00	10/17/25 16:15	Iowa
310-318398-9	MW-17	Water	10/16/25 13:30	10/17/25 16:15	Iowa
310-318398-10	MW-20	Water	10/16/25 10:35	10/17/25 16:15	Iowa

Detection Summary

Client: GHD Services Inc.
Project/Site: CIPCO Ash Landfill Project

Job ID: 310-318398-1

Client Sample ID: MW-1 — Lab Sample ID: 310-318398-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.59		5.00		mg/L	5		9056A	Total/NA
Sulfate	304		5.00		mg/L	5		9056A	Total/NA
Boron	0.310		0.100		mg/L	1		6020B	Total/NA
Cobalt	0.000934		0.000500		mg/L	1		6020B	Total/NA
Iron	2.64		0.100		mg/L	1		6020B	Total/NA
Lithium	0.0635		0.0100		mg/L	1		6020B	Total/NA
Magnesium	80.1		0.500		mg/L	1		6020B	Total/NA
Manganese	0.293		0.0100		mg/L	1		6020B	Total/NA
Sodium	9.97		1.00		mg/L	1		6020B	Total/NA
Strontium	0.761		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 310-318398-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.62		5.00		mg/L	5		9056A	Total/NA
Sulfate	191		5.00		mg/L	5		9056A	Total/NA
Boron	6.98		0.400		mg/L	4		6020B	Total/NA
Lithium	0.0331		0.0100		mg/L	1		6020B	Total/NA
Magnesium	30.2		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0615		0.0100		mg/L	1		6020B	Total/NA
Sodium	16.6		1.00		mg/L	1		6020B	Total/NA
Strontium	0.323		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 310-318398-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	37.8		5.00		mg/L	5		9056A	Total/NA
Boron	1.75		0.100		mg/L	1		6020B	Total/NA
Cobalt	0.00162		0.000500		mg/L	1		6020B	Total/NA
Iron	0.203		0.100		mg/L	1		6020B	Total/NA
Lithium	0.0336		0.0100		mg/L	1		6020B	Total/NA
Magnesium	20.4		0.500		mg/L	1		6020B	Total/NA
Manganese	0.563		0.0100		mg/L	1		6020B	Total/NA
Sodium	24.8		1.00		mg/L	1		6020B	Total/NA
Strontium	0.860		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-318398-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	65.0		5.00		mg/L	5		9056A	Total/NA
Boron	7.05		0.400		mg/L	4		6020B	Total/NA
Cobalt	0.00118		0.000500		mg/L	1		6020B	Total/NA
Iron	0.343		0.100		mg/L	1		6020B	Total/NA
Lithium	0.0183		0.0100		mg/L	1		6020B	Total/NA
Magnesium	35.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.249		0.0100		mg/L	1		6020B	Total/NA
Sodium	18.4		1.00		mg/L	1		6020B	Total/NA
Strontium	0.326		0.00100		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: CIPCO Ash Landfill Project

Job ID: 310-318398-1

Client Sample ID: MW-6 — Lab Sample ID: 310-318398-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	68.3		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00459		0.00200		mg/L	1		6020B	Total/NA
Boron	8.60		0.400		mg/L	4		6020B	Total/NA
Cobalt	0.00385		0.000500		mg/L	1		6020B	Total/NA
Iron	1.98		0.100		mg/L	1		6020B	Total/NA
Magnesium	33.1		0.500		mg/L	1		6020B	Total/NA
Manganese	7.46		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0775		0.00200		mg/L	1		6020B	Total/NA
Sodium	16.7		1.00		mg/L	1		6020B	Total/NA
Strontium	0.293		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-9 — Lab Sample ID: 310-318398-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	21.5		5.00		mg/L	5		9056A	Total/NA
Boron	0.401		0.100		mg/L	1		6020B	Total/NA
Lithium	0.0408		0.0100		mg/L	1		6020B	Total/NA
Magnesium	31.1		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0130		0.0100		mg/L	1		6020B	Total/NA
Sodium	13.2		1.00		mg/L	1		6020B	Total/NA
Strontium	0.634		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-318398-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.6		5.00		mg/L	5		9056A	Total/NA
Sulfate	89.7		5.00		mg/L	5		9056A	Total/NA
Boron	0.154		0.100		mg/L	1		6020B	Total/NA
Iron	0.625		0.100		mg/L	1		6020B	Total/NA
Magnesium	46.7		0.500		mg/L	1		6020B	Total/NA
Manganese	0.202		0.0100		mg/L	1		6020B	Total/NA
Sodium	13.1		1.00		mg/L	1		6020B	Total/NA
Strontium	0.132		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 310-318398-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17.7		5.00		mg/L	5		9056A	Total/NA
Sulfate	1420		20.0		mg/L	20		9056A	Total/NA
Boron	41.7		1.60		mg/L	16		6020B	Total/NA
Lithium	0.140		0.0100		mg/L	1		6020B	Total/NA
Magnesium	114		2.00		mg/L	4		6020B	Total/NA
Manganese	0.0476		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.396		0.00200		mg/L	1		6020B	Total/NA
Sodium	96.5		1.00		mg/L	1		6020B	Total/NA
Strontium	0.793		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-17 — Lab Sample ID: 310-318398-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	1180		20.0		mg/L	20		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-17 (Continued)
Lab Sample ID: 310-318398-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	29.7		1.00		mg/L	10		6020B	Total/NA
Iron	1.23		0.400		mg/L	4		6020B	Total/NA
Lithium	0.242		0.0100		mg/L	1		6020B	Total/NA
Magnesium	193		2.00		mg/L	4		6020B	Total/NA
Manganese	0.329		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.0513		0.00200		mg/L	1		6020B	Total/NA
Sodium	77.6		1.00		mg/L	1		6020B	Total/NA
Strontium	0.499		0.00100		mg/L	1		6020B	Total/NA

Client Sample ID: MW-20
Lab Sample ID: 310-318398-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	29.9		5.00		mg/L	5		9056A	Total/NA
Boron	1.79		0.100		mg/L	1		6020B	Total/NA
Lithium	0.0203		0.0100		mg/L	1		6020B	Total/NA
Magnesium	16.3		0.500		mg/L	1		6020B	Total/NA
Manganese	0.0259		0.0100		mg/L	1		6020B	Total/NA
Sodium	88.1		1.00		mg/L	1		6020B	Total/NA
Strontium	0.578		0.00100		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-1
Lab Sample ID: 310-318398-1
Date Collected: 10/16/25 10:00
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.59**		5.00		mg/L			10/21/25 14:45	5
Sulfate	**304**		5.00		mg/L			10/21/25 14:45	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:24	1
Boron	**0.310**		0.100		mg/L		10/21/25 08:45	10/24/25 18:24	1
Cobalt	**0.000934**		0.000500		mg/L		10/21/25 08:45	10/24/25 18:24	1
Iron	**2.64**		0.100		mg/L		10/21/25 08:45	10/24/25 18:24	1
Lithium	**0.0635**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:24	1
Magnesium	**80.1**		0.500		mg/L		10/21/25 08:45	10/24/25 18:24	1
Manganese	**0.293**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:24	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:24	1
Sodium	**9.97**		1.00		mg/L		10/21/25 08:45	10/24/25 18:24	1
Strontium	**0.761**		0.00100		mg/L		10/21/25 08:45	10/24/25 18:24	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-2

Lab Sample ID: 310-318398-2

Date Collected: 10/16/25 14:50

Matrix: Water

Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.62**		5.00		mg/L			10/21/25 14:56	5
Sulfate	**191**		5.00		mg/L			10/21/25 14:56	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:27	1
Boron	**6.98**		0.400		mg/L		10/21/25 08:45	10/27/25 13:12	4
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 18:27	1
Iron	<0.100		0.100		mg/L		10/21/25 08:45	10/24/25 18:27	1
Lithium	**0.0331**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:27	1
Magnesium	**30.2**		0.500		mg/L		10/21/25 08:45	10/24/25 18:27	1
Manganese	**0.0615**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:27	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:27	1
Sodium	**16.6**		1.00		mg/L		10/21/25 08:45	10/24/25 18:27	1
Strontium	**0.323**		0.00100		mg/L		10/21/25 08:45	10/24/25 18:27	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-3
Lab Sample ID: 310-318398-3

Date Collected: 10/16/25 15:40
Matrix: Water

Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			10/21/25 15:31	5
Sulfate	**37.8**		5.00		mg/L			10/21/25 15:31	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:30	1
Boron	**1.75**		0.100		mg/L		10/21/25 08:45	10/24/25 18:30	1
Cobalt	**0.00162**		0.000500		mg/L		10/21/25 08:45	10/24/25 18:30	1
Iron	**0.203**		0.100		mg/L		10/21/25 08:45	10/24/25 18:30	1
Lithium	**0.0336**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:30	1
Magnesium	**20.4**		0.500		mg/L		10/21/25 08:45	10/24/25 18:30	1
Manganese	**0.563**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:30	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:30	1
Sodium	**24.8**		1.00		mg/L		10/21/25 08:45	10/24/25 18:30	1
Strontium	**0.860**		0.00100		mg/L		10/21/25 08:45	10/24/25 18:30	1

Client Sample Results

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-5
Lab Sample ID: 310-318398-4

Date Collected: 10/16/25 12:15
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.3**		5.00		mg/L			10/21/25 15:42	5
Sulfate	**65.0**		5.00		mg/L			10/21/25 15:42	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:33	1
Boron	**7.05**		0.400		mg/L		10/21/25 08:45	10/27/25 13:15	4
Cobalt	**0.00118**		0.000500		mg/L		10/21/25 08:45	10/24/25 18:33	1
Iron	**0.343**		0.100		mg/L		10/21/25 08:45	10/24/25 18:33	1
Lithium	**0.0183**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:33	1
Magnesium	**35.3**		0.500		mg/L		10/21/25 08:45	10/24/25 18:33	1
Manganese	**0.249**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:33	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:33	1
Sodium	**18.4**		1.00		mg/L		10/21/25 08:45	10/24/25 18:33	1
Strontium	**0.326**		0.00100		mg/L		10/21/25 08:45	10/24/25 18:33	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-6
Lab Sample ID: 310-318398-5
Date Collected: 10/16/25 11:15
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.2		5.00		mg/L			10/21/25 15:54	5
Sulfate	68.3		5.00		mg/L			10/21/25 15:54	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00459		0.00200		mg/L		10/21/25 08:45	10/24/25 18:35	1
Boron	8.60		0.400		mg/L		10/21/25 08:45	10/27/25 13:18	4
Cobalt	0.00385		0.000500		mg/L		10/21/25 08:45	10/24/25 18:35	1
Iron	1.98		0.100		mg/L		10/21/25 08:45	10/24/25 18:35	1
Lithium	<0.0100		0.0100		mg/L		10/21/25 08:45	10/24/25 18:35	1
Magnesium	33.1		0.500		mg/L		10/21/25 08:45	10/24/25 18:35	1
Manganese	7.46		0.0100		mg/L		10/21/25 08:45	10/24/25 18:35	1
Molybdenum	0.0775		0.00200		mg/L		10/21/25 08:45	10/24/25 18:35	1
Sodium	16.7		1.00		mg/L		10/21/25 08:45	10/24/25 18:35	1
Strontium	0.293		0.00100		mg/L		10/21/25 08:45	10/24/25 18:35	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-9
Lab Sample ID: 310-318398-6
Date Collected: 10/16/25 16:10
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			10/21/25 16:06	5
Sulfate	**21.5**		5.00		mg/L			10/21/25 16:06	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:38	1
Boron	**0.401**		0.100		mg/L		10/21/25 08:45	10/24/25 18:38	1
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 18:38	1
Iron	<0.100		0.100		mg/L		10/21/25 08:45	10/24/25 18:38	1
Lithium	**0.0408**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:38	1
Magnesium	**31.1**		0.500		mg/L		10/21/25 08:45	10/24/25 18:38	1
Manganese	**0.0130**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:38	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:38	1
Sodium	**13.2**		1.00		mg/L		10/21/25 08:45	10/24/25 18:38	1
Strontium	**0.634**		0.00100		mg/L		10/21/25 08:45	10/24/25 18:38	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-11
Lab Sample ID: 310-318398-7
Date Collected: 10/16/25 09:00
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.6**		5.00		mg/L			10/21/25 23:13	5
Sulfate	**89.7**		5.00		mg/L			10/21/25 23:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:41	1
Boron	**0.154**		0.100		mg/L		10/21/25 08:45	10/24/25 18:41	1
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 18:41	1
Iron	**0.625**		0.100		mg/L		10/21/25 08:45	10/24/25 18:41	1
Lithium	<0.0100		0.0100		mg/L		10/21/25 08:45	10/24/25 18:41	1
Magnesium	**46.7**		0.500		mg/L		10/21/25 08:45	10/24/25 18:41	1
Manganese	**0.202**		0.0100		mg/L		10/21/25 08:45	10/24/25 18:41	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:41	1
Sodium	**13.1**		1.00		mg/L		10/21/25 08:45	10/24/25 18:41	1
Strontium	**0.132**		0.00100		mg/L		10/21/25 08:45	10/24/25 18:41	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-15
Lab Sample ID: 310-318398-8
Date Collected: 10/16/25 14:00
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.7**		5.00		mg/L			10/21/25 23:25	5
Sulfate	**1420**		20.0		mg/L			10/22/25 09:43	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 20:08	1
Boron	**41.7**		1.60		mg/L		10/21/25 08:45	10/28/25 12:57	16
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 20:08	1
Iron	<0.400		0.400		mg/L		10/21/25 08:45	10/27/25 14:45	4
Lithium	**0.140**		0.0100		mg/L		10/21/25 08:45	10/24/25 20:08	1
Magnesium	**114**		2.00		mg/L		10/21/25 08:45	10/25/25 17:58	4
Manganese	**0.0476**		0.0100		mg/L		10/21/25 08:45	10/24/25 20:08	1
Molybdenum	**0.396**		0.00200		mg/L		10/21/25 08:45	10/24/25 20:08	1
Sodium	**96.5**		1.00		mg/L		10/21/25 08:45	10/24/25 20:08	1
Strontium	**0.793**		0.00100		mg/L		10/21/25 08:45	10/24/25 20:08	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-17
Lab Sample ID: 310-318398-9
Date Collected: 10/16/25 13:30
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.5**		5.00		mg/L			10/21/25 23:38	5
Sulfate	**1180**		20.0		mg/L			10/22/25 09:55	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 20:11	1
Boron	**29.7**		1.00		mg/L		10/21/25 08:45	10/28/25 13:00	10
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 20:11	1
Iron	**1.23**		0.400		mg/L		10/21/25 08:45	10/27/25 14:48	4
Lithium	**0.242**		0.0100		mg/L		10/21/25 08:45	10/24/25 20:11	1
Magnesium	**193**		2.00		mg/L		10/21/25 08:45	10/25/25 18:01	4
Manganese	**0.329**		0.0100		mg/L		10/21/25 08:45	10/24/25 20:11	1
Molybdenum	**0.0513**		0.00200		mg/L		10/21/25 08:45	10/24/25 20:11	1
Sodium	**77.6**		1.00		mg/L		10/21/25 08:45	10/24/25 20:11	1
Strontium	**0.499**		0.00100		mg/L		10/21/25 08:45	10/24/25 20:11	1

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-20
Lab Sample ID: 310-318398-10
Date Collected: 10/16/25 10:35
Matrix: Water
Date Received: 10/17/25 16:15

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00		5.00		mg/L			10/21/25 23:50	5
Sulfate	**29.9**		5.00		mg/L			10/21/25 23:50	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 20:14	1
Boron	**1.79**		0.100		mg/L		10/21/25 08:45	10/27/25 14:51	1
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 20:14	1
Iron	<0.100		0.100		mg/L		10/21/25 08:45	10/24/25 20:14	1
Lithium	**0.0203**		0.0100		mg/L		10/21/25 08:45	10/24/25 20:14	1
Magnesium	**16.3**		0.500		mg/L		10/21/25 08:45	10/24/25 20:14	1
Manganese	**0.0259**		0.0100		mg/L		10/21/25 08:45	10/24/25 20:14	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 20:14	1
Sodium	**88.1**		1.00		mg/L		10/21/25 08:45	10/24/25 20:14	1
Strontium	**0.578**		0.00100		mg/L		10/21/25 08:45	10/24/25 20:14	1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-470922/3
Matrix: Water
Analysis Batch: 470922

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			10/21/25 10:53	1
Sulfate	<1.00		1.00		mg/L			10/21/25 10:53	1

Lab Sample ID: LCS 310-470922/4
Matrix: Water
Analysis Batch: 470922

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.863		mg/L		99	90 - 110
Sulfate	10.0	10.06		mg/L		101	90 - 110

Lab Sample ID: MB 310-470984/3
Matrix: Water
Analysis Batch: 470984

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			10/21/25 18:48	1
Sulfate	<1.00		1.00		mg/L			10/21/25 18:48	1

Lab Sample ID: LCS 310-470984/4
Matrix: Water
Analysis Batch: 470984

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.854		mg/L		99	90 - 110
Sulfate	10.0	9.964		mg/L		100	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-470690/1-A
Matrix: Water
Analysis Batch: 471347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 470690

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 17:21	1
Boron	<0.100		0.100		mg/L		10/21/25 08:45	10/24/25 17:21	1
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 17:21	1
Iron	<0.100		0.100		mg/L		10/21/25 08:45	10/24/25 17:21	1
Lithium	<0.0100		0.0100		mg/L		10/21/25 08:45	10/24/25 17:21	1
Magnesium	<0.500		0.500		mg/L		10/21/25 08:45	10/24/25 17:21	1
Manganese	<0.0100		0.0100		mg/L		10/21/25 08:45	10/24/25 17:21	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 17:21	1
Sodium	<1.00		1.00		mg/L		10/21/25 08:45	10/24/25 17:21	1
Strontium	<0.00100		0.00100		mg/L		10/21/25 08:45	10/24/25 17:21	1

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

Lab Sample ID: LCS 310-470690/2-A
Matrix: Water
Analysis Batch: 471347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 470690

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.1885		mg/L		94	80 - 120
Boron	0.200	0.1875		mg/L		94	80 - 120
Cobalt	0.100	0.09338		mg/L		93	80 - 120
Iron	0.200	0.1866		mg/L		93	80 - 120
Lithium	0.200	0.1833		mg/L		92	80 - 120
Magnesium	2.00	1.833		mg/L		92	80 - 120
Manganese	0.100	0.09757		mg/L		98	80 - 120
Molybdenum	0.200	0.1935		mg/L		97	80 - 120
Sodium	2.00	1.942		mg/L		97	80 - 120
Strontium	0.200	0.1853		mg/L		93	80 - 120

Lab Sample ID: MB 310-470692/1-A
Matrix: Water
Analysis Batch: 471347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 470692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:47	1
Cobalt	<0.000500		0.000500		mg/L		10/21/25 08:45	10/24/25 18:47	1
Lithium	<0.0100		0.0100		mg/L		10/21/25 08:45	10/24/25 18:47	1
Magnesium	<0.500		0.500		mg/L		10/21/25 08:45	10/24/25 18:47	1
Manganese	<0.0100		0.0100		mg/L		10/21/25 08:45	10/24/25 18:47	1
Molybdenum	<0.00200		0.00200		mg/L		10/21/25 08:45	10/24/25 18:47	1
Sodium	<1.00		1.00		mg/L		10/21/25 08:45	10/24/25 18:47	1
Strontium	<0.00100		0.00100		mg/L		10/21/25 08:45	10/24/25 18:47	1

Lab Sample ID: MB 310-470692/1-A
Matrix: Water
Analysis Batch: 471495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 470692

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.100		0.100		mg/L		10/21/25 08:45	10/27/25 16:43	1
Iron	<0.100		0.100		mg/L		10/21/25 08:45	10/27/25 16:43	1

Lab Sample ID: LCS 310-470692/2-A
Matrix: Water
Analysis Batch: 471347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 470692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2002		mg/L		100	80 - 120
Cobalt	0.100	0.09931		mg/L		99	80 - 120
Lithium	0.200	0.1951		mg/L		98	80 - 120
Magnesium	2.00	1.919		mg/L		96	80 - 120
Manganese	0.100	0.1044		mg/L		104	80 - 120
Molybdenum	0.200	0.2045		mg/L		102	80 - 120
Sodium	2.00	2.094		mg/L		105	80 - 120
Strontium	0.200	0.1956		mg/L		98	80 - 120

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

Lab Sample ID: LCS 310-470692/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 471495
Prep Batch: 470692

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.1968		mg/L		98	80 - 120
Iron	0.200	0.1964		mg/L		98	80 - 120

HPLC/IC

Analysis Batch: 470922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-1	MW-1	Total/NA	Water	9056A	
310-318398-2	MW-2	Total/NA	Water	9056A	
310-318398-3	MW-3	Total/NA	Water	9056A	
310-318398-4	MW-5	Total/NA	Water	9056A	
310-318398-5	MW-6	Total/NA	Water	9056A	
310-318398-6	MW-9	Total/NA	Water	9056A	
MB 310-470922/3	Method Blank	Total/NA	Water	9056A	
LCS 310-470922/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 470984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-7	MW-11	Total/NA	Water	9056A	
310-318398-8	MW-15	Total/NA	Water	9056A	
310-318398-8	MW-15	Total/NA	Water	9056A	
310-318398-9	MW-17	Total/NA	Water	9056A	
310-318398-9	MW-17	Total/NA	Water	9056A	
310-318398-10	MW-20	Total/NA	Water	9056A	
MB 310-470984/3	Method Blank	Total/NA	Water	9056A	
LCS 310-470984/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 470690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-1	MW-1	Total/NA	Water	3005A	
310-318398-2	MW-2	Total/NA	Water	3005A	
310-318398-3	MW-3	Total/NA	Water	3005A	
310-318398-4	MW-5	Total/NA	Water	3005A	
310-318398-5	MW-6	Total/NA	Water	3005A	
310-318398-6	MW-9	Total/NA	Water	3005A	
310-318398-7	MW-11	Total/NA	Water	3005A	
MB 310-470690/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-470690/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 470692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-8	MW-15	Total/NA	Water	3005A	
310-318398-9	MW-17	Total/NA	Water	3005A	
310-318398-10	MW-20	Total/NA	Water	3005A	
MB 310-470692/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-470692/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 471347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-1	MW-1	Total/NA	Water	6020B	470690
310-318398-2	MW-2	Total/NA	Water	6020B	470690
310-318398-3	MW-3	Total/NA	Water	6020B	470690
310-318398-4	MW-5	Total/NA	Water	6020B	470690
310-318398-5	MW-6	Total/NA	Water	6020B	470690
310-318398-6	MW-9	Total/NA	Water	6020B	470690
310-318398-7	MW-11	Total/NA	Water	6020B	470690

Metals (Continued)

Analysis Batch: 471347 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-8	MW-15	Total/NA	Water	6020B	470692
310-318398-9	MW-17	Total/NA	Water	6020B	470692
310-318398-10	MW-20	Total/NA	Water	6020B	470692
MB 310-470690/1-A	Method Blank	Total/NA	Water	6020B	470690
MB 310-470692/1-A	Method Blank	Total/NA	Water	6020B	470692
LCS 310-470690/2-A	Lab Control Sample	Total/NA	Water	6020B	470690
LCS 310-470692/2-A	Lab Control Sample	Total/NA	Water	6020B	470692

Analysis Batch: 471367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-8	MW-15	Total/NA	Water	6020B	470692
310-318398-9	MW-17	Total/NA	Water	6020B	470692

Analysis Batch: 471495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-2	MW-2	Total/NA	Water	6020B	470690
310-318398-4	MW-5	Total/NA	Water	6020B	470690
310-318398-5	MW-6	Total/NA	Water	6020B	470690
310-318398-8	MW-15	Total/NA	Water	6020B	470692
310-318398-9	MW-17	Total/NA	Water	6020B	470692
310-318398-10	MW-20	Total/NA	Water	6020B	470692
MB 310-470692/1-A	Method Blank	Total/NA	Water	6020B	470692
LCS 310-470692/2-A	Lab Control Sample	Total/NA	Water	6020B	470692

Analysis Batch: 471614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-318398-8	MW-15	Total/NA	Water	6020B	470692
310-318398-9	MW-17	Total/NA	Water	6020B	470692

Client Sample ID: MW-1
Lab Sample ID: 310-318398-1

Date Collected: 10/16/25 10:00
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470922	ZRI4	EET CF	10/21/25 14:45
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:24

Client Sample ID: MW-2
Lab Sample ID: 310-318398-2

Date Collected: 10/16/25 14:50
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470922	ZRI4	EET CF	10/21/25 14:56
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:27
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471495	NFT2	EET CF	10/27/25 13:12

Client Sample ID: MW-3
Lab Sample ID: 310-318398-3

Date Collected: 10/16/25 15:40
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470922	ZRI4	EET CF	10/21/25 15:31
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:30

Client Sample ID: MW-5
Lab Sample ID: 310-318398-4

Date Collected: 10/16/25 12:15
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470922	ZRI4	EET CF	10/21/25 15:42
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:33
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471495	NFT2	EET CF	10/27/25 13:15

Client Sample ID: MW-6
Lab Sample ID: 310-318398-5

Date Collected: 10/16/25 11:15
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470922	ZRI4	EET CF	10/21/25 15:54
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:35
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471495	NFT2	EET CF	10/27/25 13:18

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-9
Lab Sample ID: 310-318398-6
Date Collected: 10/16/25 16:10
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470922	ZRI4	EET CF	10/21/25 16:06
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:38

Client Sample ID: MW-11
Lab Sample ID: 310-318398-7
Date Collected: 10/16/25 09:00
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470984	ZRI4	EET CF	10/21/25 23:13
Total/NA	Prep	3005A			470690	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 18:41

Client Sample ID: MW-15
Lab Sample ID: 310-318398-8
Date Collected: 10/16/25 14:00
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470984	ZRI4	EET CF	10/21/25 23:25
Total/NA	Analysis	9056A		20	470984	ZRI4	EET CF	10/22/25 09:43
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471367	ZRI4	EET CF	10/25/25 17:58
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		16	471614	NFT2	EET CF	10/28/25 12:57
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 20:08
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471495	NFT2	EET CF	10/27/25 14:45

Client Sample ID: MW-17
Lab Sample ID: 310-318398-9
Date Collected: 10/16/25 13:30
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470984	ZRI4	EET CF	10/21/25 23:38
Total/NA	Analysis	9056A		20	470984	ZRI4	EET CF	10/22/25 09:55
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471367	ZRI4	EET CF	10/25/25 18:01
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		10	471614	NFT2	EET CF	10/28/25 13:00
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 20:11
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		4	471495	NFT2	EET CF	10/27/25 14:48

Lab Chronicle

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Client Sample ID: MW-20
Lab Sample ID: 310-318398-10
Date Collected: 10/16/25 10:35
Matrix: Water
Date Received: 10/17/25 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	470984	ZRI4	EET CF	10/21/25 23:50
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471347	ZRI4	EET CF	10/24/25 20:14
Total/NA	Prep	3005A			470692	RLT9	EET CF	10/21/25 08:45
Total/NA	Analysis	6020B		1	471495	NFT2	EET CF	10/27/25 14:51

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Method Summary

Client: GHD Services Inc.
Job ID: 310-318398-1
Project/Site: CIPCO Ash Landfill Project

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
3005A	Preparation, Total Metals	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-318398 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: GHD			
City/State:	CITY Des Moines	STATE IA	Project:
Receipt Information			
Date/Time Received:	DATE 10-17-2025	TIME 1615	Received By: Brody Patterson

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers			
Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present? No	☐ Yes	☒ No	*If yes* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present? No	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: AA	Correction Factor (°C): ±0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.6	Corrected Temp (°C): 2.6

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used		
Uncorrected Temp (°C).		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

EUROFINS
DES MOINES SERVICE CENTER
214

eurofins

Client Information	Sampler: Clint. Oberbroeckling	Lab PM: Bindert, Zach T	Carrier Tracking No(s):	COC No: 310-99464-26950 1
Client Contact: Clint Oberbroeckling	Phone: 515.210.4299	E-Mail: Zach.Bindert@et.eurofinsus.com	State of Origin: IA	Page: Page 1 of 1
Company: GHD Services Inc.	PWSID:			Job #: 12560436
Address: 11228 Aurora Avenue	Due Date Requested: 14 Cal Days			
City: Des Moines	TAT Requested (days): Std			
State, Zip: IA, 50322-7905	Compliance Project: Δ Yes Δ No			
Phone: 515-414-3944(Tel)	PO #:			
Email: clint.oberbroeckling@ghd com	WO #: 12560436-004			
Project Name: CIPCO Ash Landfill Project	Project #: 31018156			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.
N - None
D - HNO3
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D - Chloride and Sulfate	6020B - (MOD) Total Select ICPMS Metals	Total Number of containers	Special Instructions/Note:
		Preservation Code:					N	D		
MW-1	10/16/25	1000	G	Water			X	X		
MW-2		1450		Water						
MW-3		1540		Water						
MW-5		1215		Water						
MW-6		415		Water						
~~MW-7~~ No SAMPLE		—	—	Water						
MW-9		1610	G	Water						
MW-11		900		Water						
MW-15		1400		Water						
MW-17		1330		Water						
MW-20		1035		Water						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	10/17/25 700	GHD	Front Desk	10/17/25 700	GHD
2	Front Desk	10/17/25	GHD	[signature]	10/17/25 1319	Eurofins
3				Bobby Patterson	10-17-25 1615	Eurofins

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

10/28/2025

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 310-318398-1

Login Number: 318398

List Source: Eurofins Cedar Falls

List Number: 1

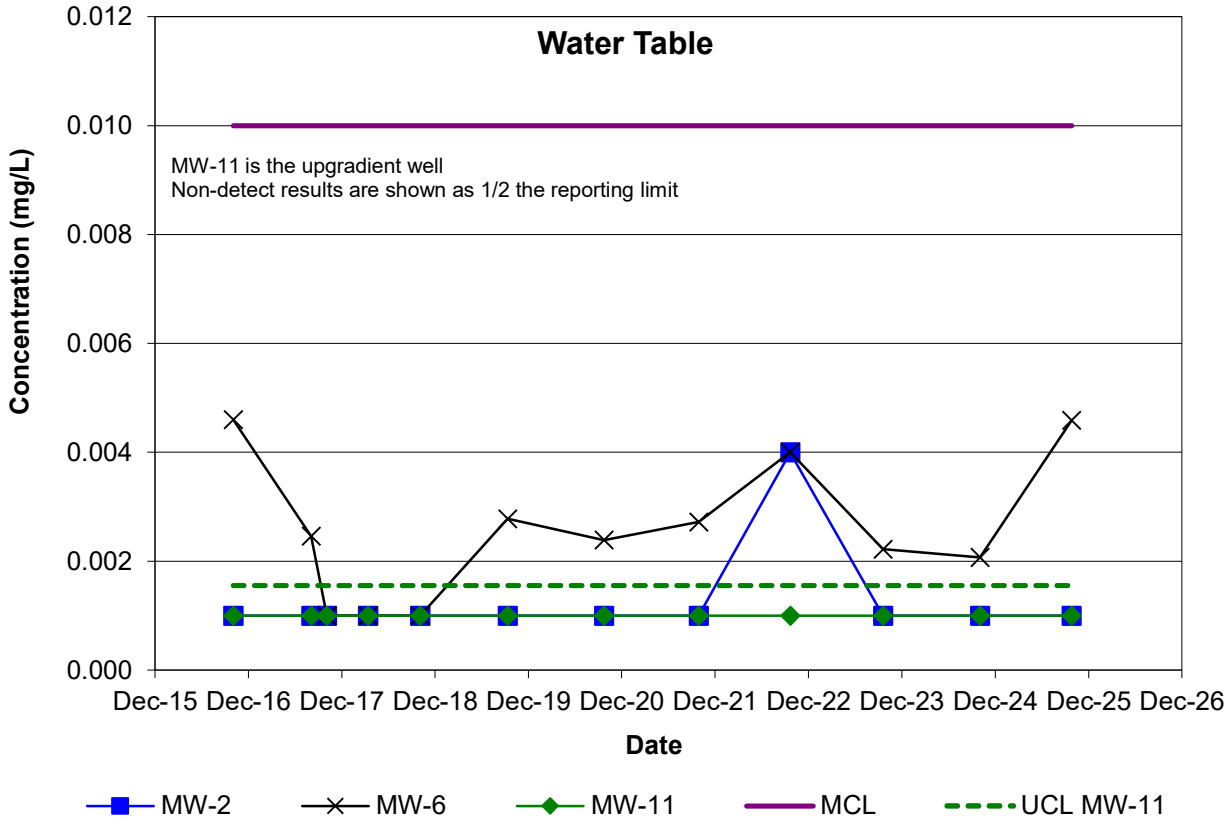
Creator: Hirsch, Preston

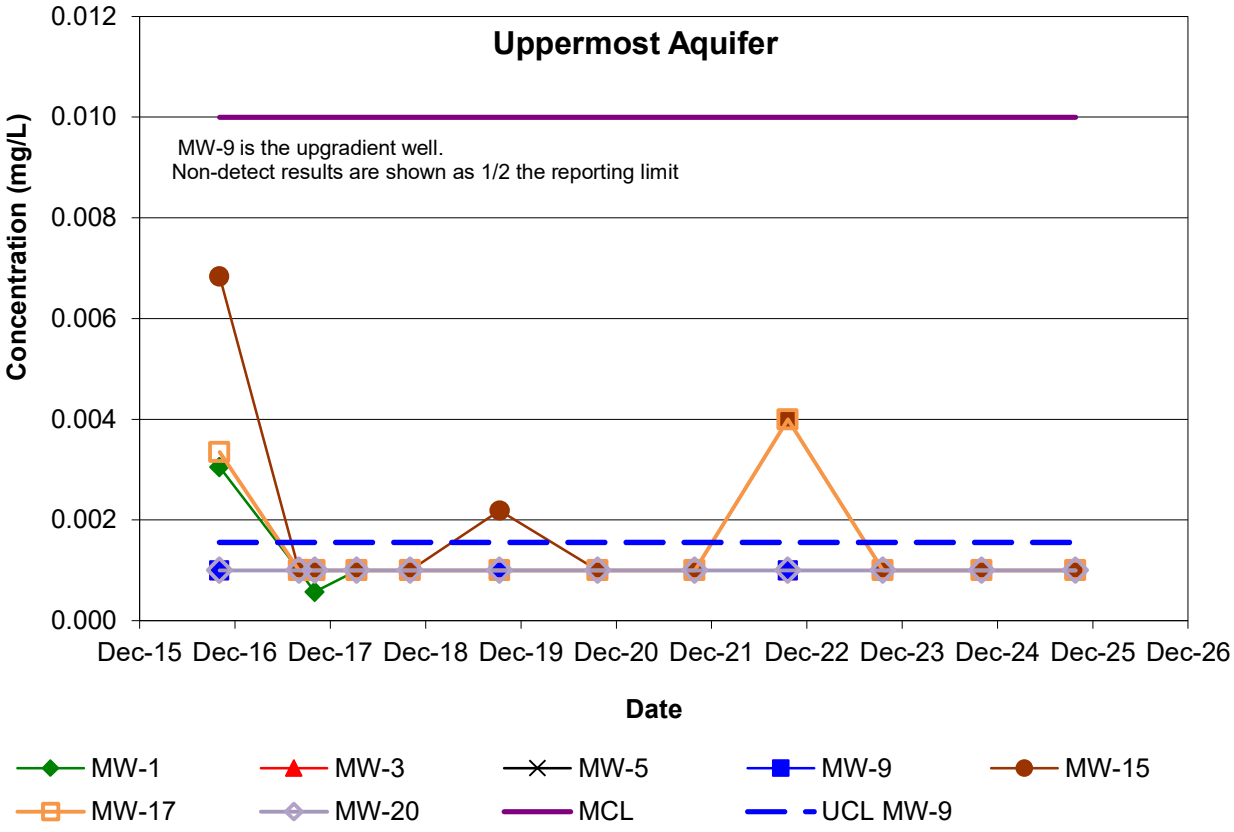
Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix C

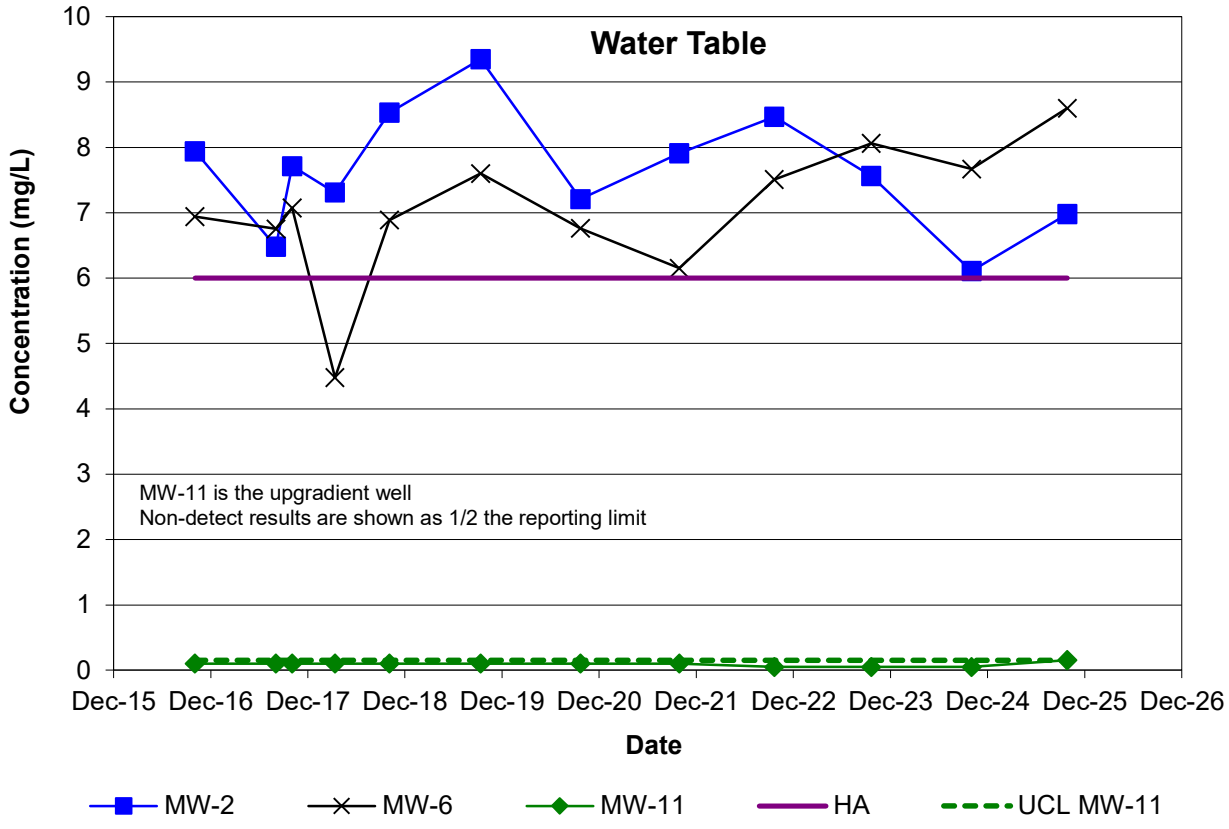
Graphs of Analytical and Monitoring Results

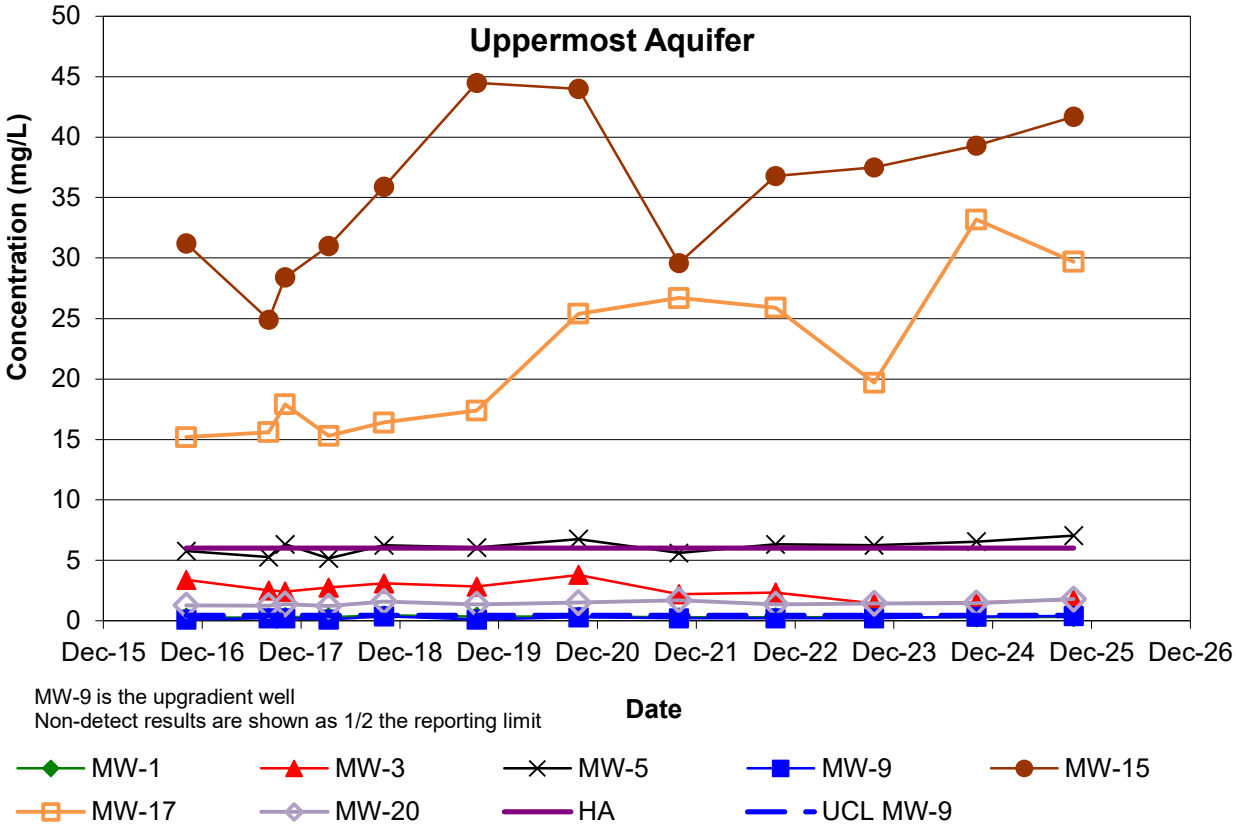
ARSENIC


Water Table
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Concentration (mg/L)
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
MCL
UCL MW-11

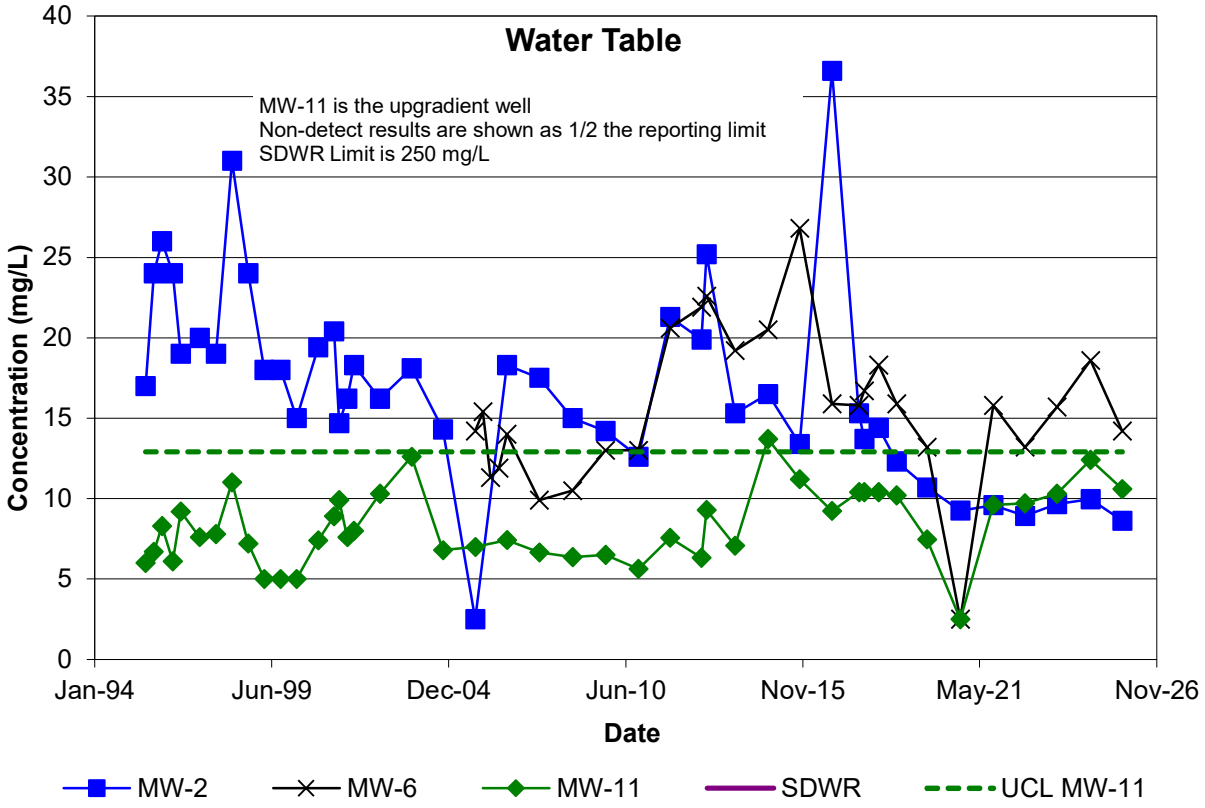

Uppermost Aquifer
MW-9 is the upgradient well.
Non-detect results are shown as 1/2 the reporting limit
Concentration (mg/L)
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
MCL
UCL MW-9

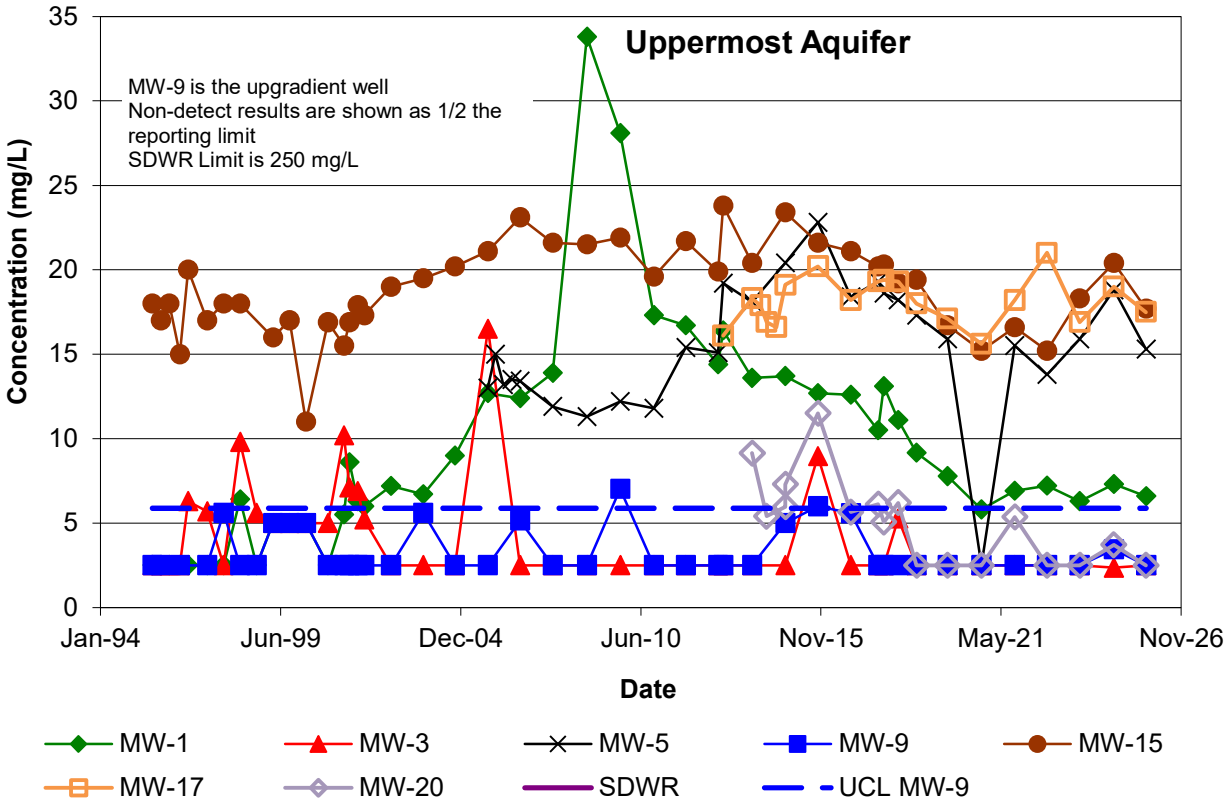
BORON


Water Table
Concentration (mg/L)
10
9
8
7
6
5
4
3
2
1
0
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
HA
UCL MW-11

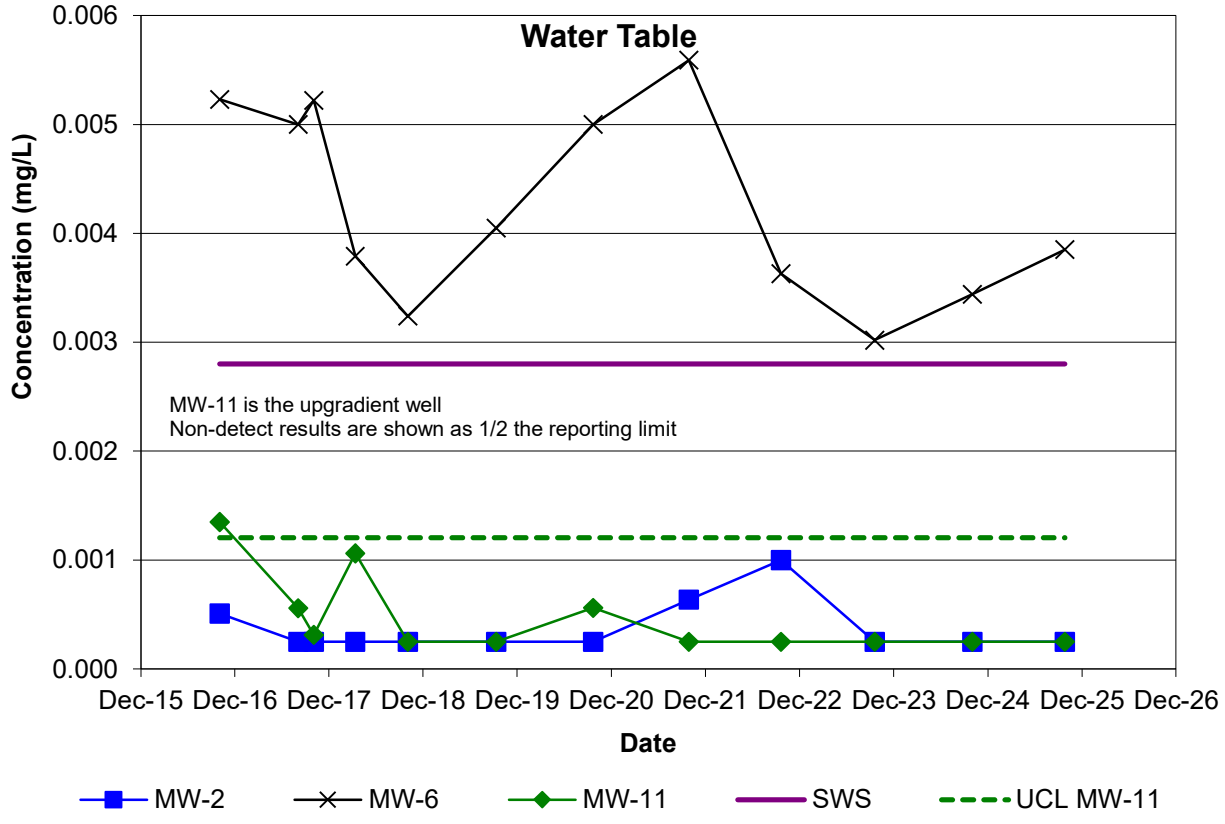

Uppermost Aquifer
Concentration (mg/L)
50
45
40
35
30
25
20
15
10
5
0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-9 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
HA
UCL MW-9

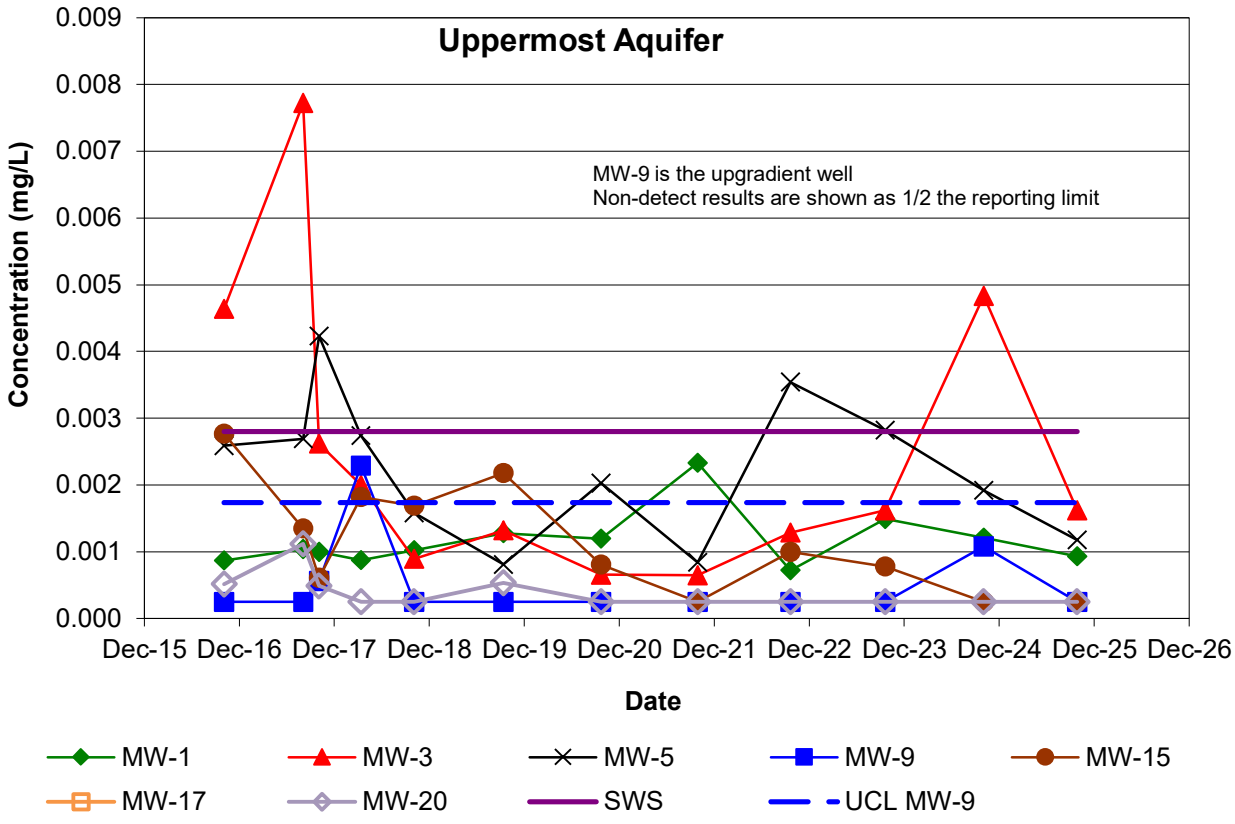
CHLORIDE


Water Table
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
SDWR Limit is 250 mg/L
Concentration (mg/L)
0
5
10
15
20
25
30
35
40
Jan-94
Jun-99
Dec-04
Jun-10
Nov-15
May-21
Nov-26
Date
MW-2
MW-6
MW-11
SDWR
UCL MW-11

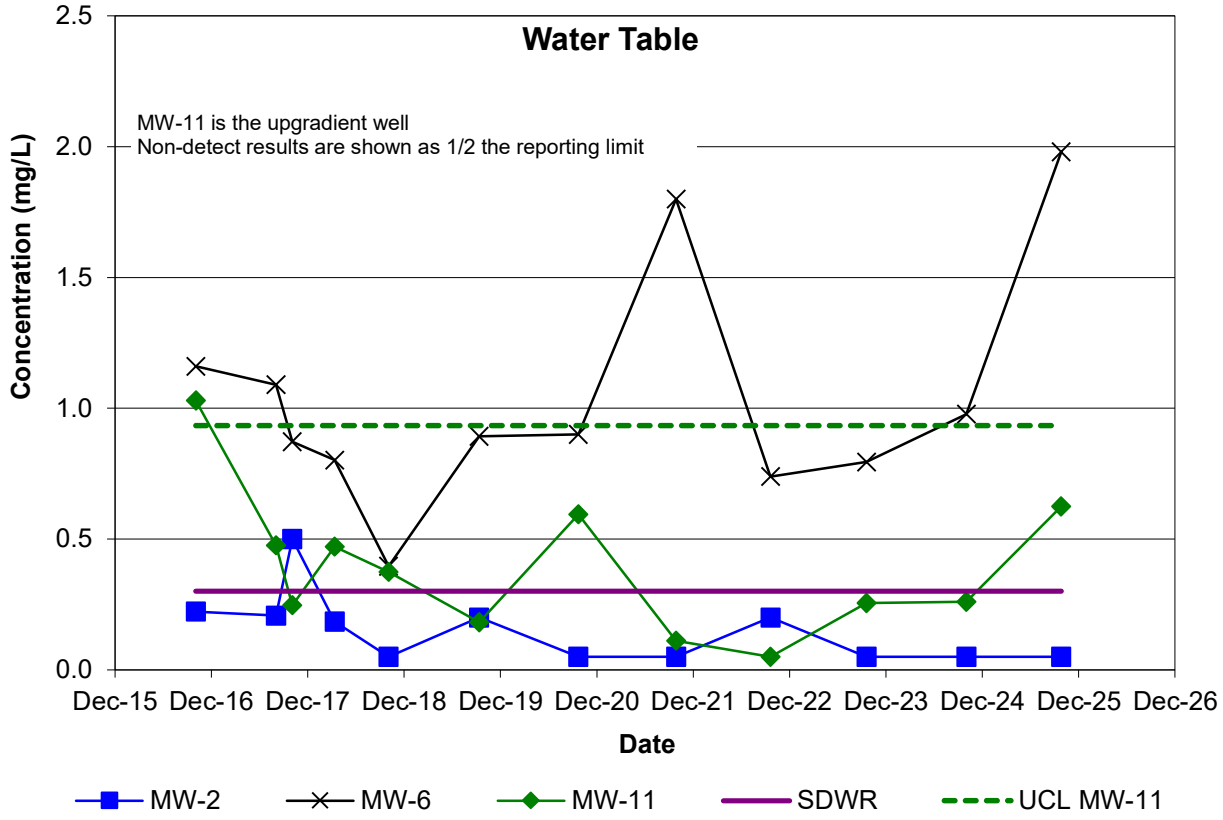

Uppermost Aquifer
MW-9 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
SDWR Limit is 250 mg/L
Concentration (mg/L)
0
5
10
15
20
25
30
35
Jan-94
Jun-99
Dec-04
Jun-10
Nov-15
May-21
Nov-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
SDWR
UCL MW-9

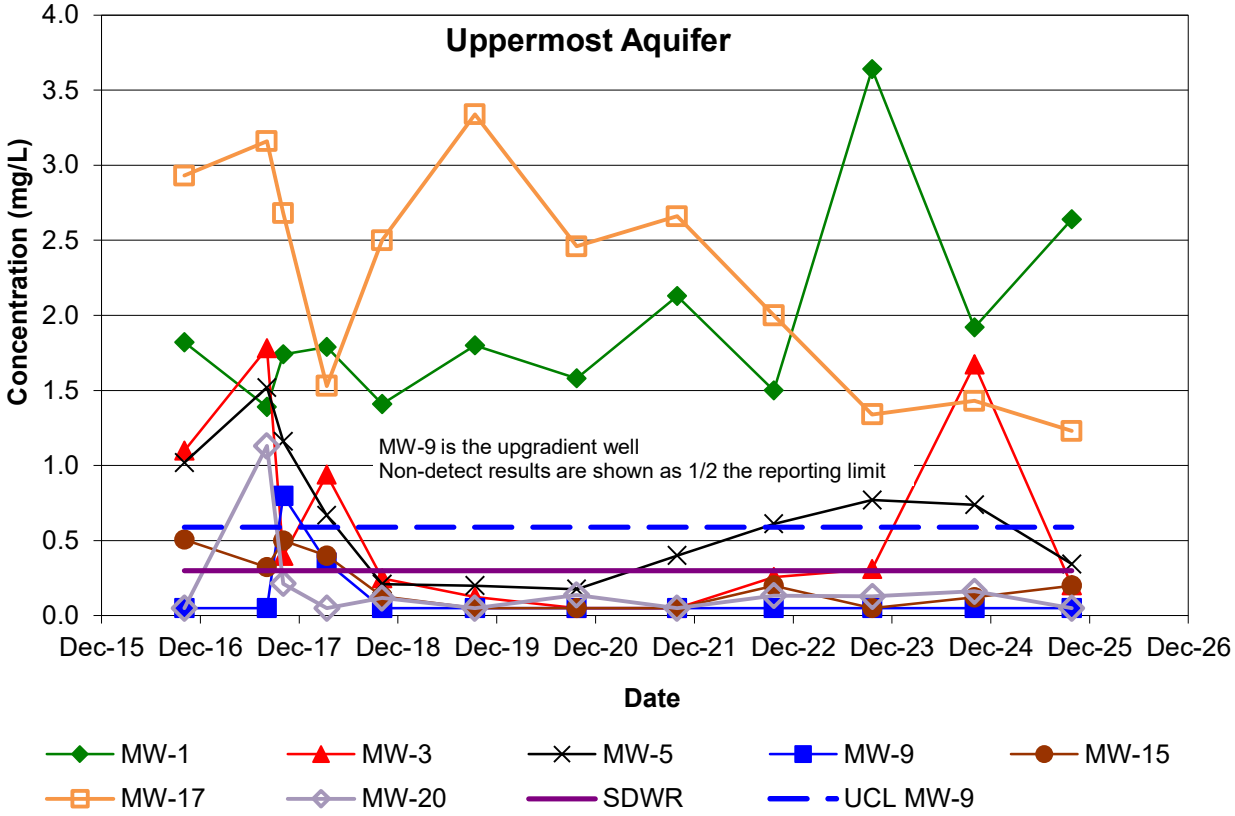
COBALT


Water Table
Concentration (mg/L)
0.006
0.005
0.004
0.003
0.002
0.001
0.000
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
SWS
UCL MW-11

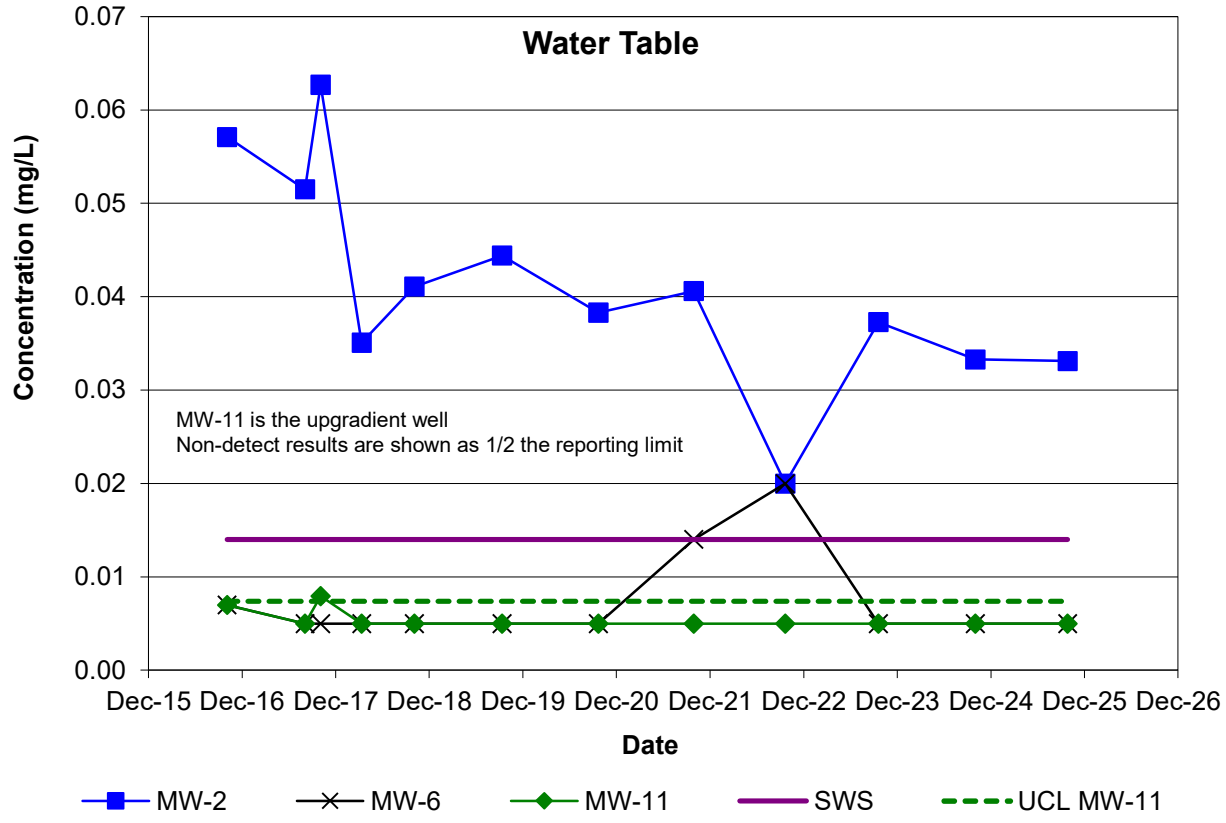

Uppermost Aquifer
Concentration (mg/L)
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
MW-9 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
SWS
UCL MW-9

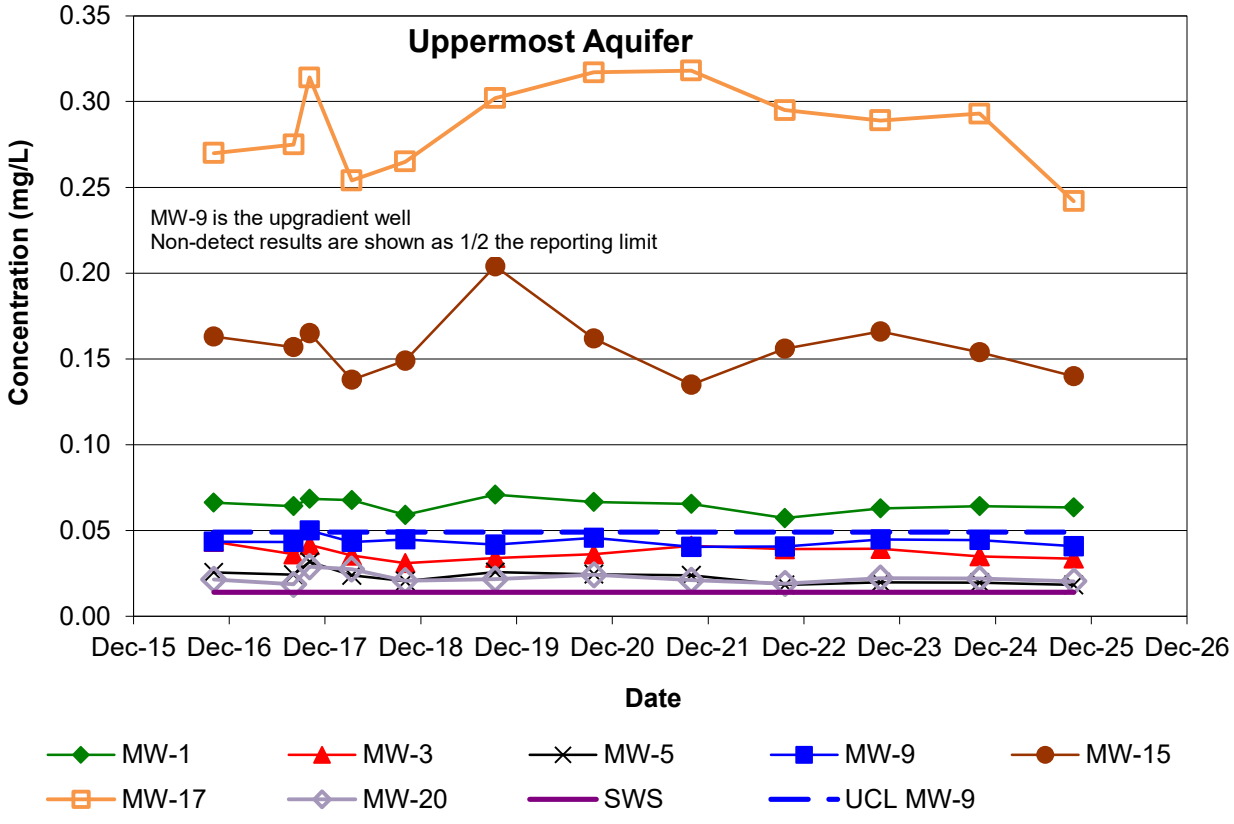
IRON


Water Table
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Concentration (mg/L)
2.5
2.0
1.5
1.0
0.5
0.0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
SDWR
UCL MW-11

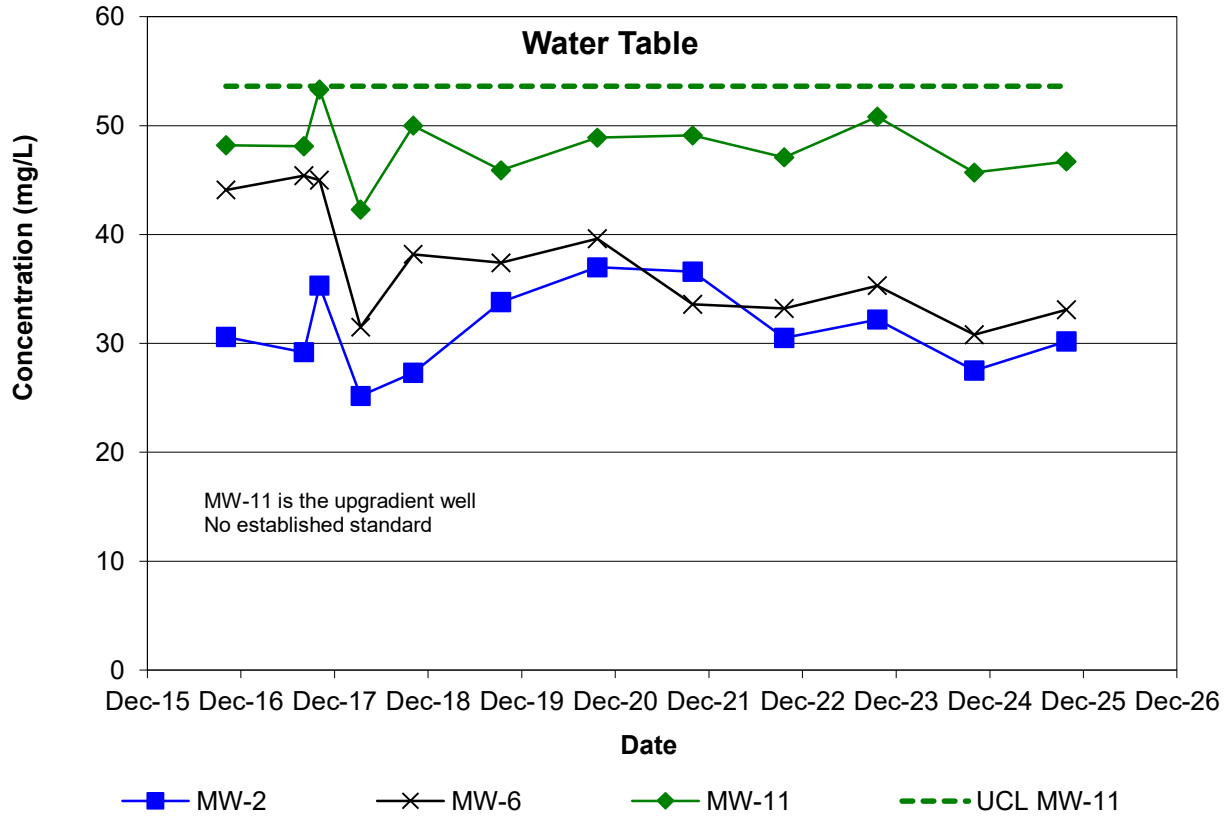

Uppermost Aquifer
MW-9 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Concentration (mg/L)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
SDWR
UCL MW-9

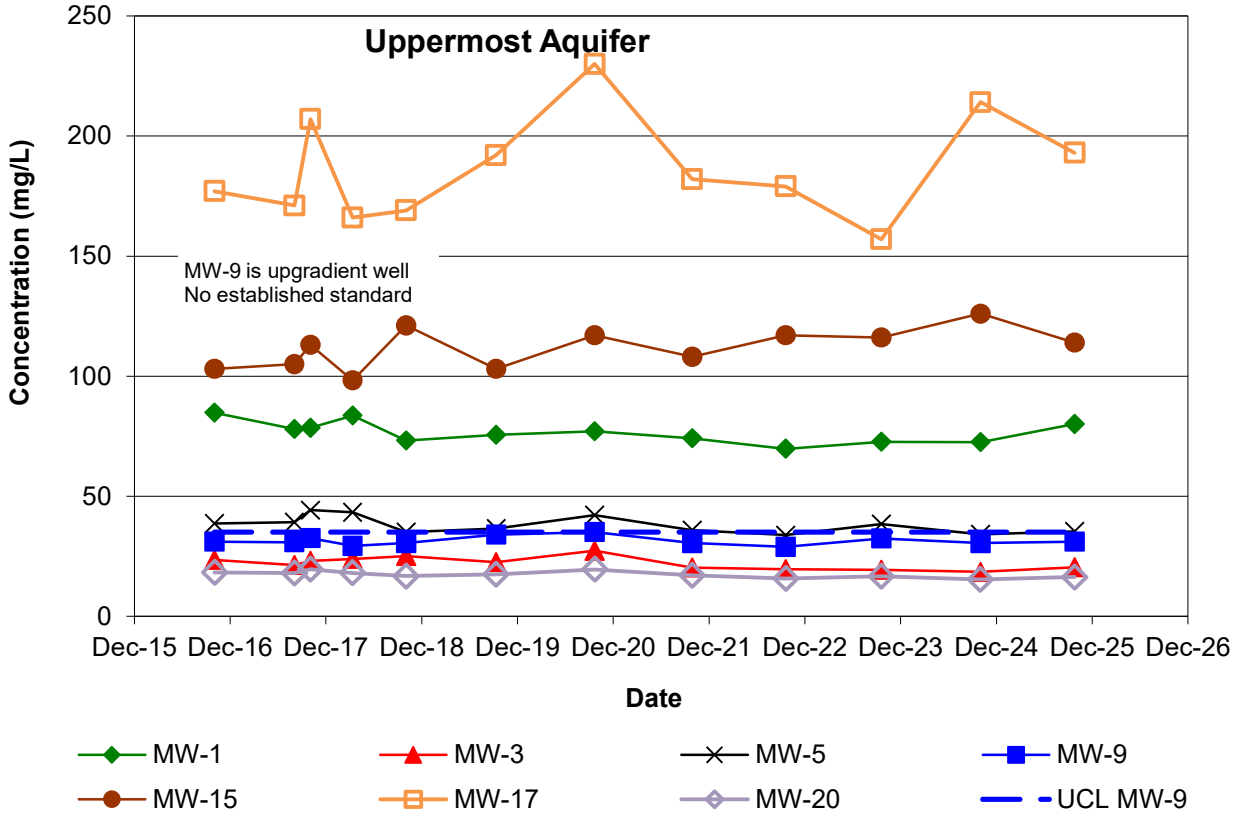
LITHIUM


Water Table
Concentration (mg/L)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
SWS
UCL MW-11

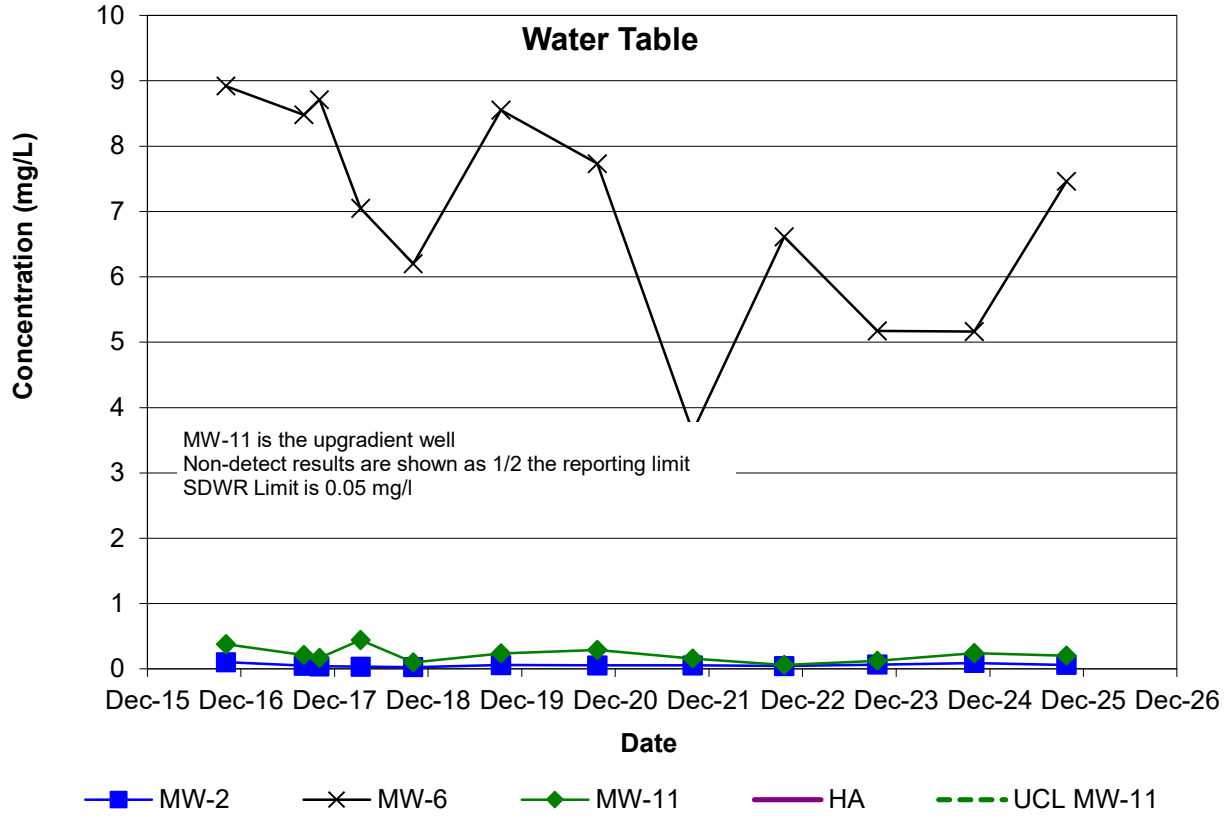

Uppermost Aquifer
Concentration (mg/L)
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
MW-9 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
SWS
UCL MW-9

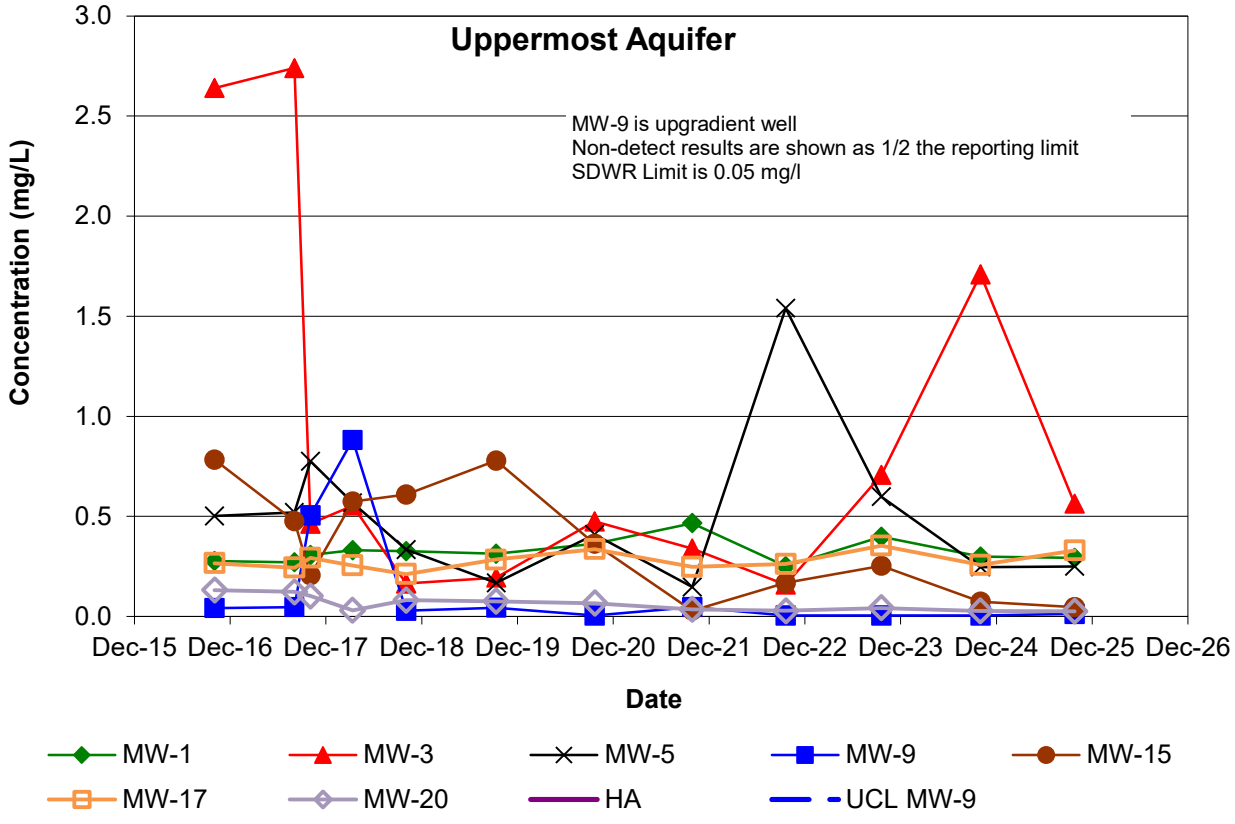
MAGNESIUM


Water Table
Concentration (mg/L)
60
50
40
30
20
10
0
MW-11 is the upgradient well
No established standard
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
UCL MW-11

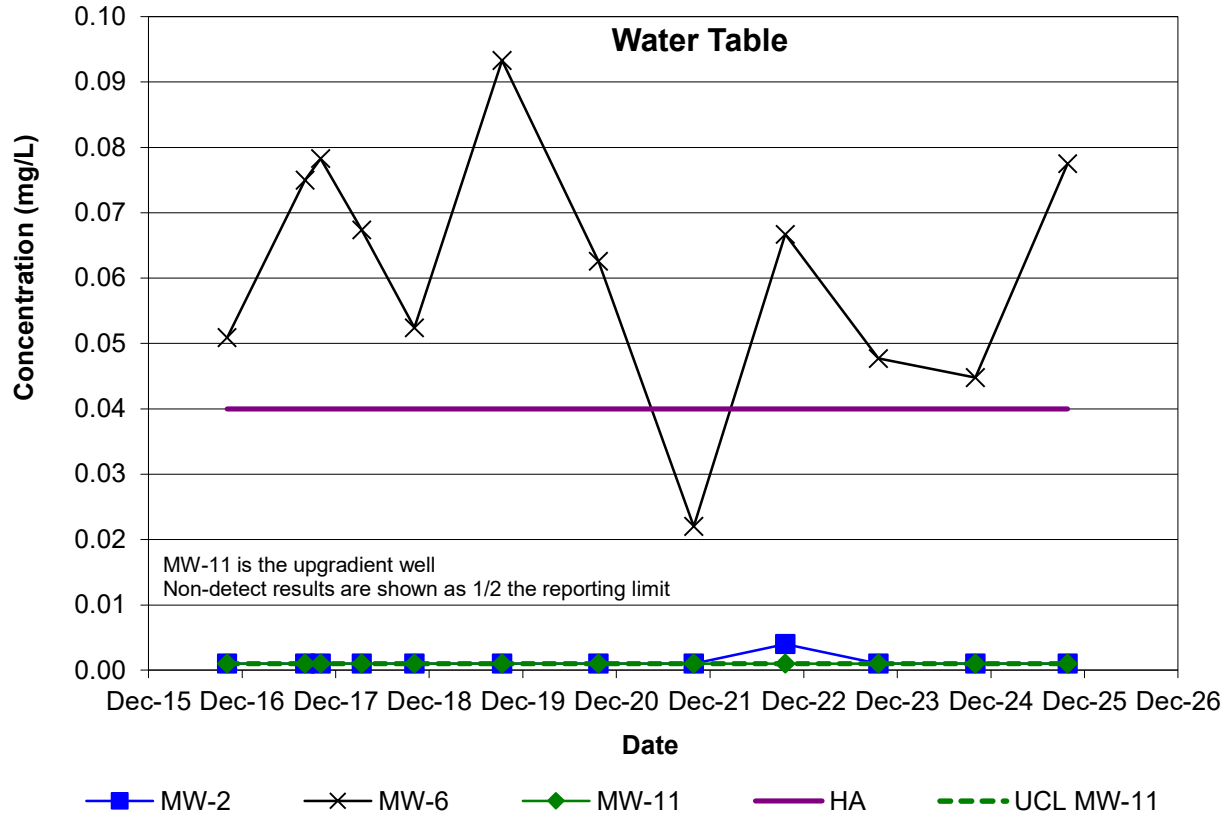

Uppermost Aquifer
Concentration (mg/L)
250
200
150
100
50
0
MW-9 is upgradient well
No established standard
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
UCL MW-9

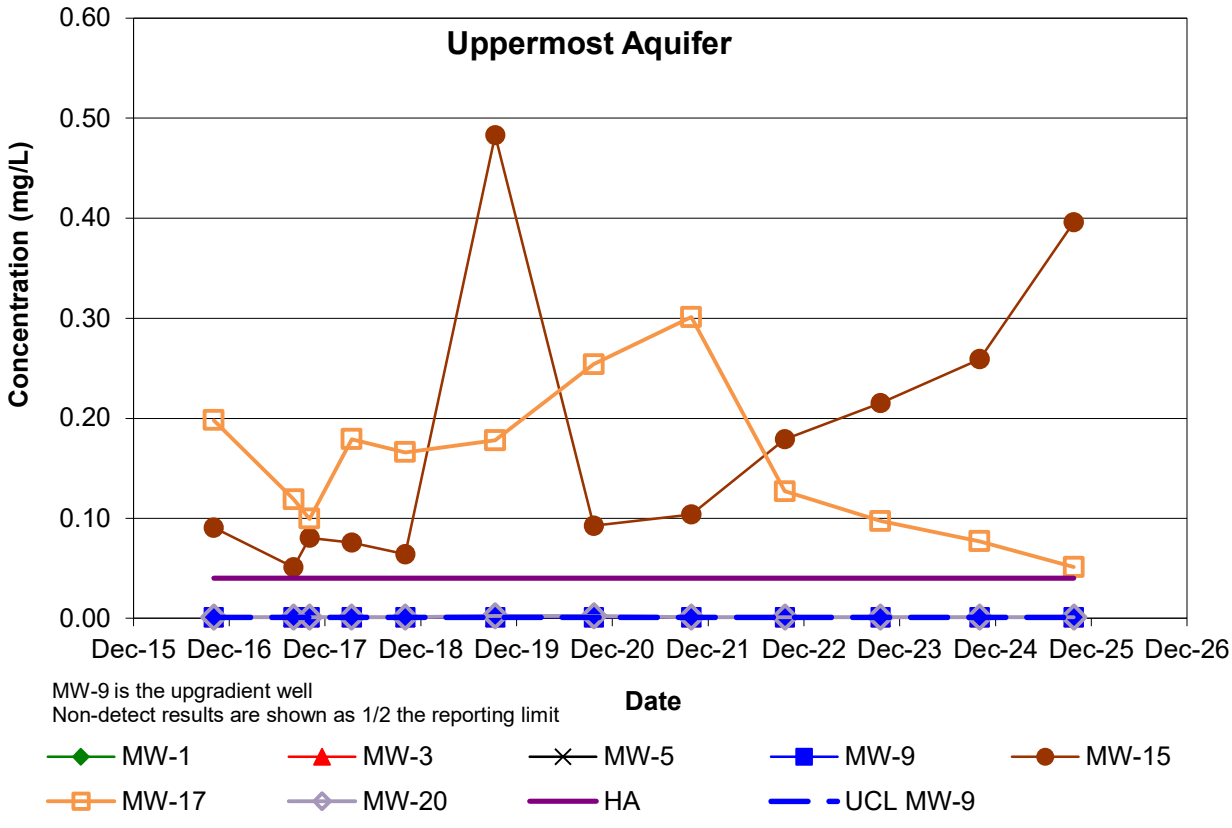
MANGANESE


Water Table
Concentration (mg/L)
10
9
8
7
6
5
4
3
2
1
0
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
SDWR Limit is 0.05 mg/l
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
HA
UCL MW-11

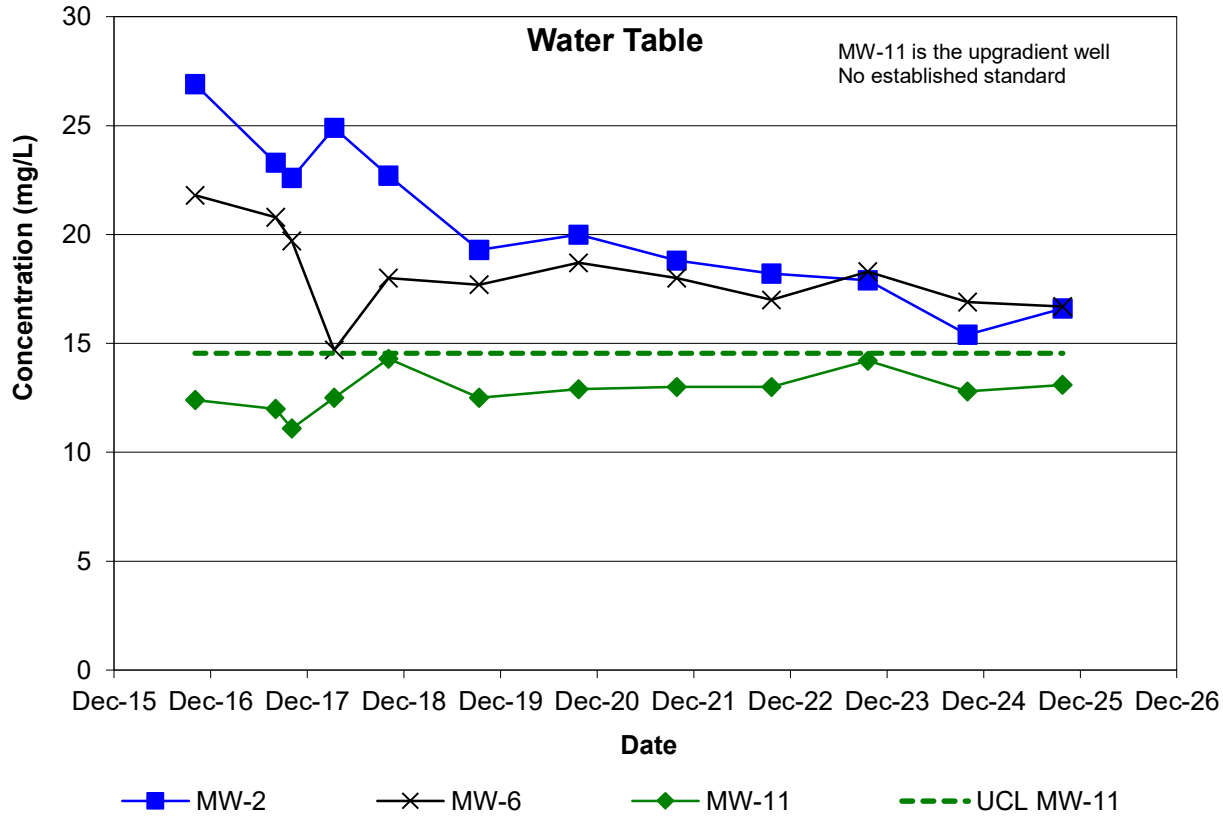

Uppermost Aquifer
Concentration (mg/L)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
MW-9 is upgradient well
Non-detect results are shown as 1/2 the reporting limit
SDWR Limit is 0.05 mg/l
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
HA
UCL MW-9

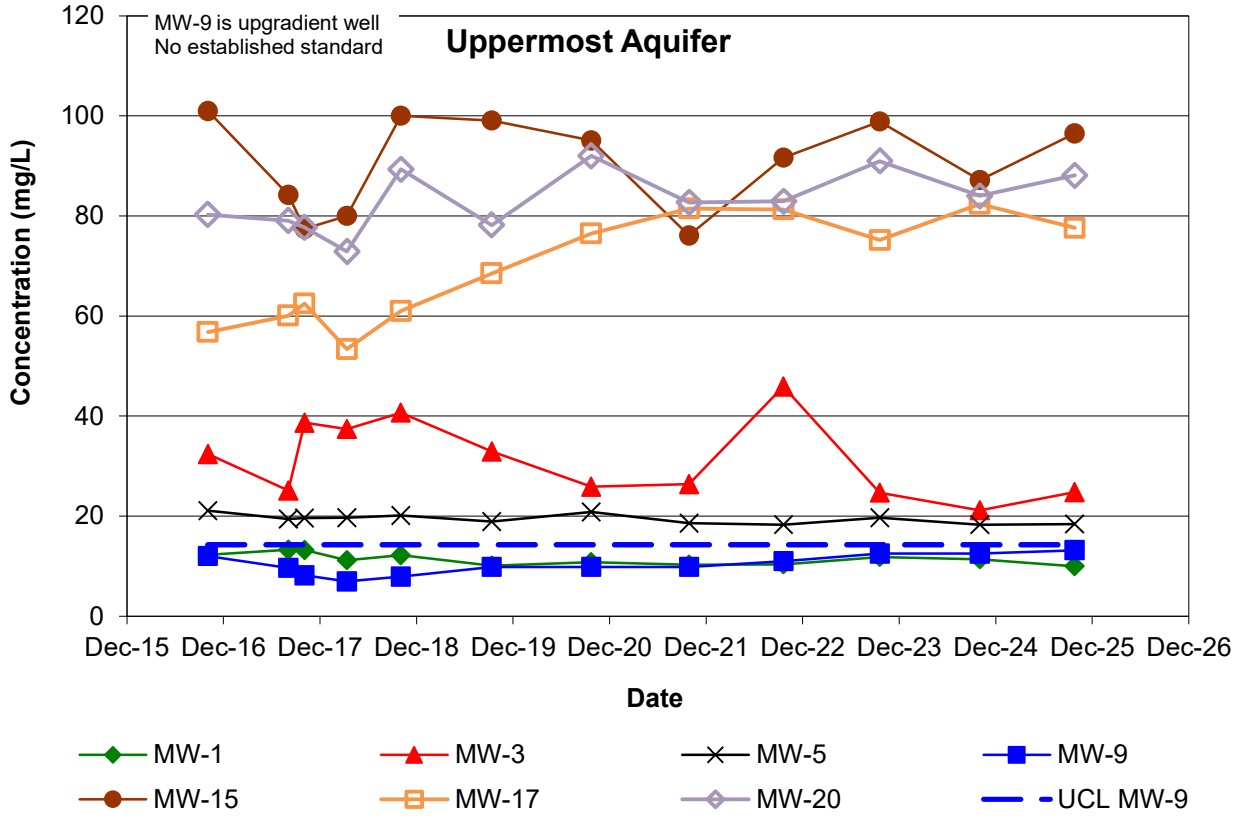
MOLYBDENUM


Water Table
Concentration (mg/L)
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
MW-11 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
HA
UCL MW-11

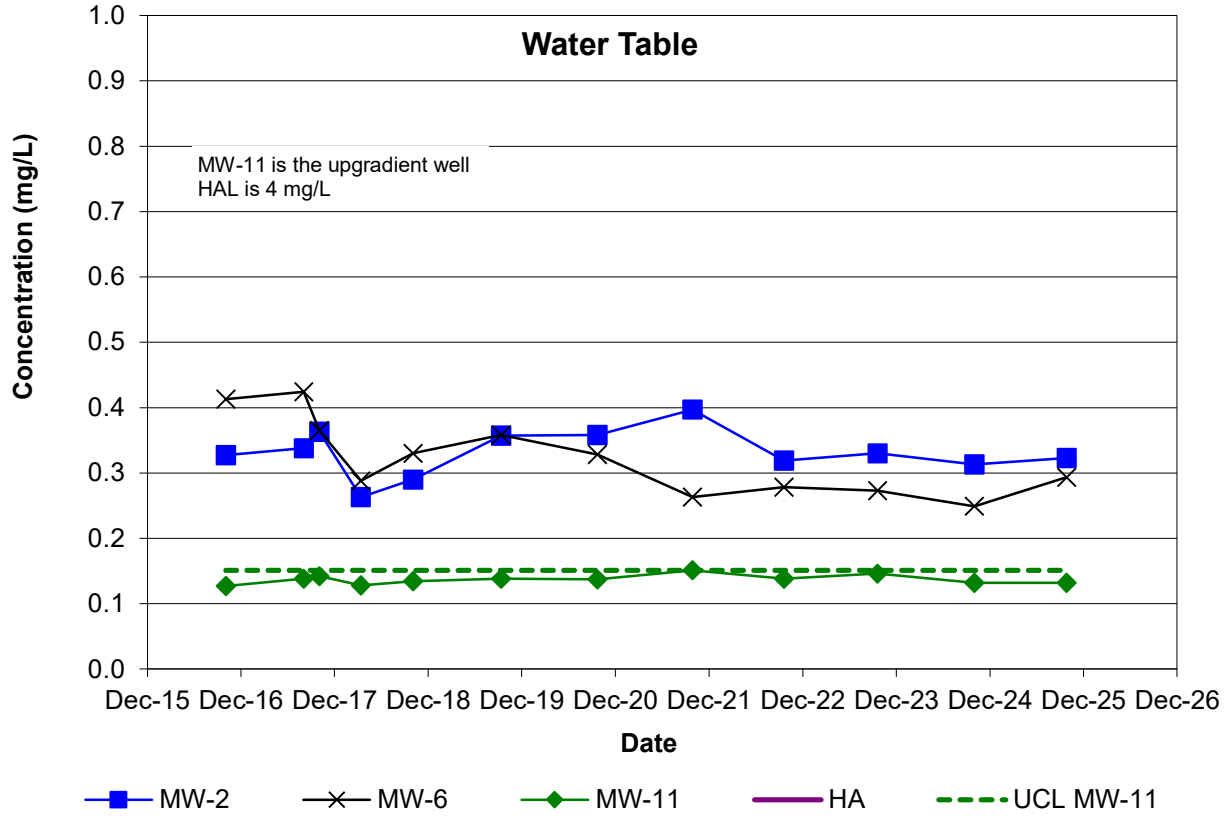

Uppermost Aquifer
Concentration (mg/L)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
MW-9 is the upgradient well
Non-detect results are shown as 1/2 the reporting limit
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
HA
UCL MW-9

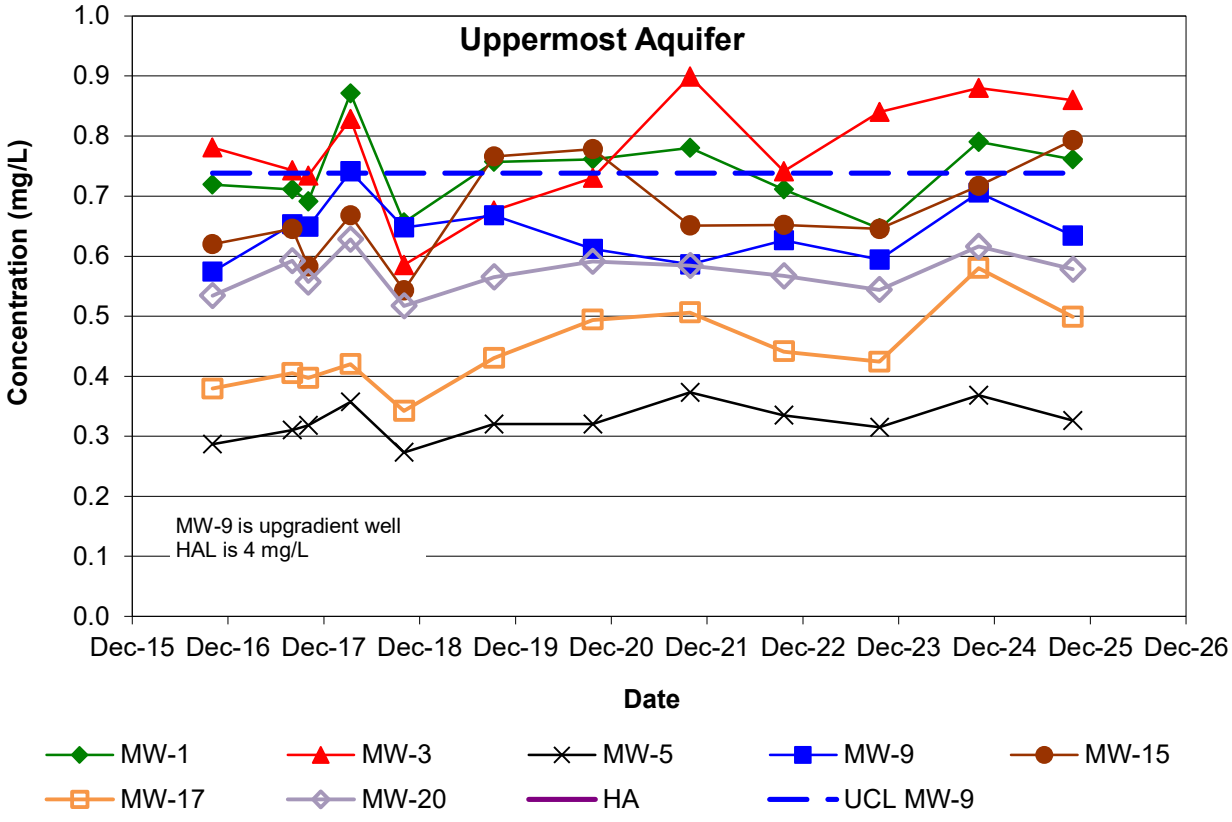
SODIUM


Water Table
MW-11 is the upgradient well
No established standard
Concentration (mg/L)
30
25
20
15
10
5
0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
UCL MW-11

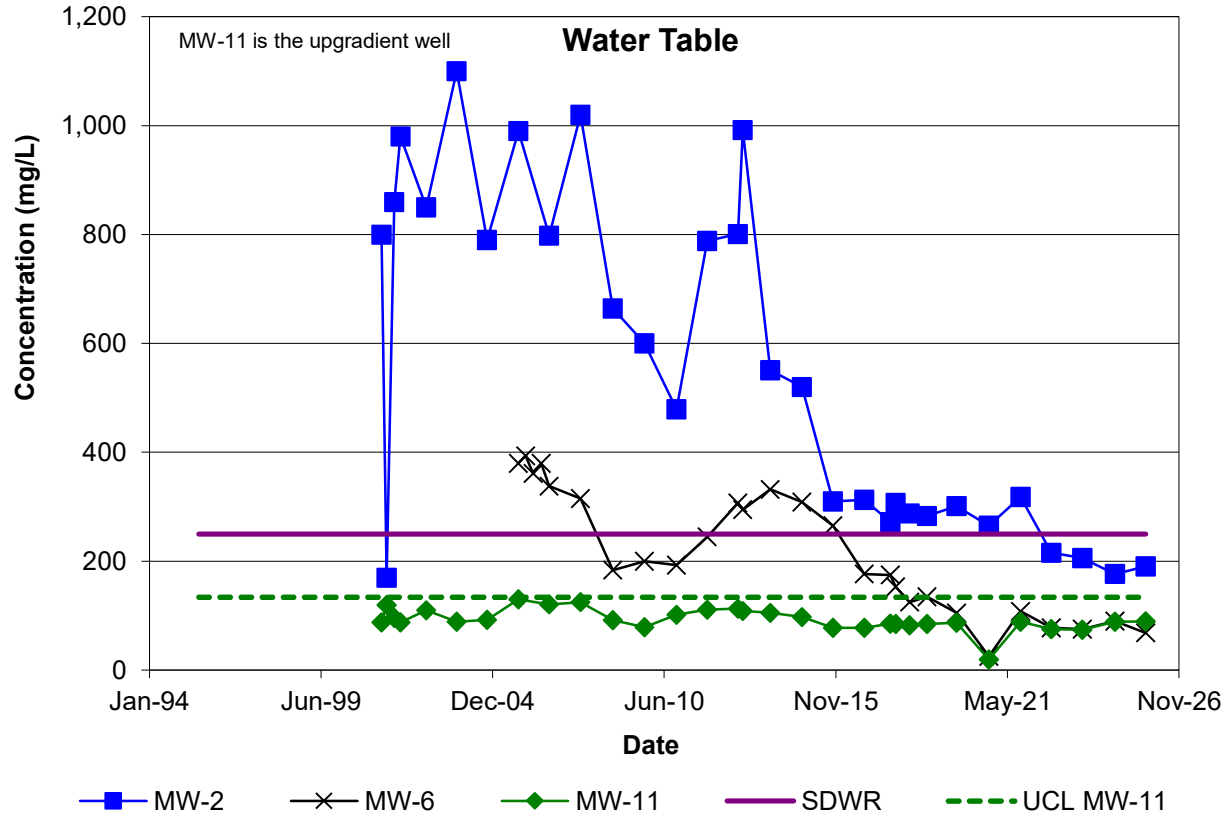

MW-9 is upgradient well
No established standard
Uppermost Aquifer
Concentration (mg/L)
120
100
80
60
40
20
0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
UCL MW-9

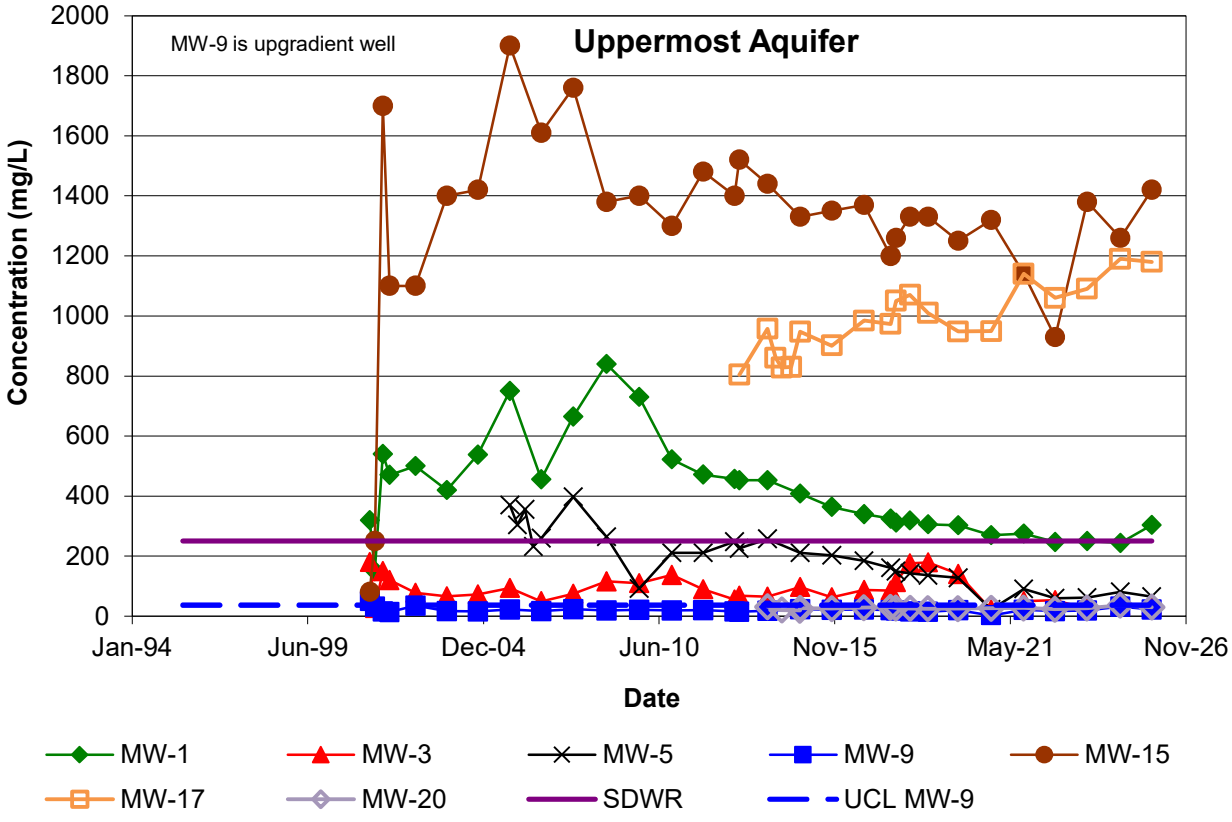
STRONTIUM


Water Table
MW-11 is the upgradient well
HAL is 4 mg/L
Concentration (mg/L)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-2
MW-6
MW-11
HA
UCL MW-11

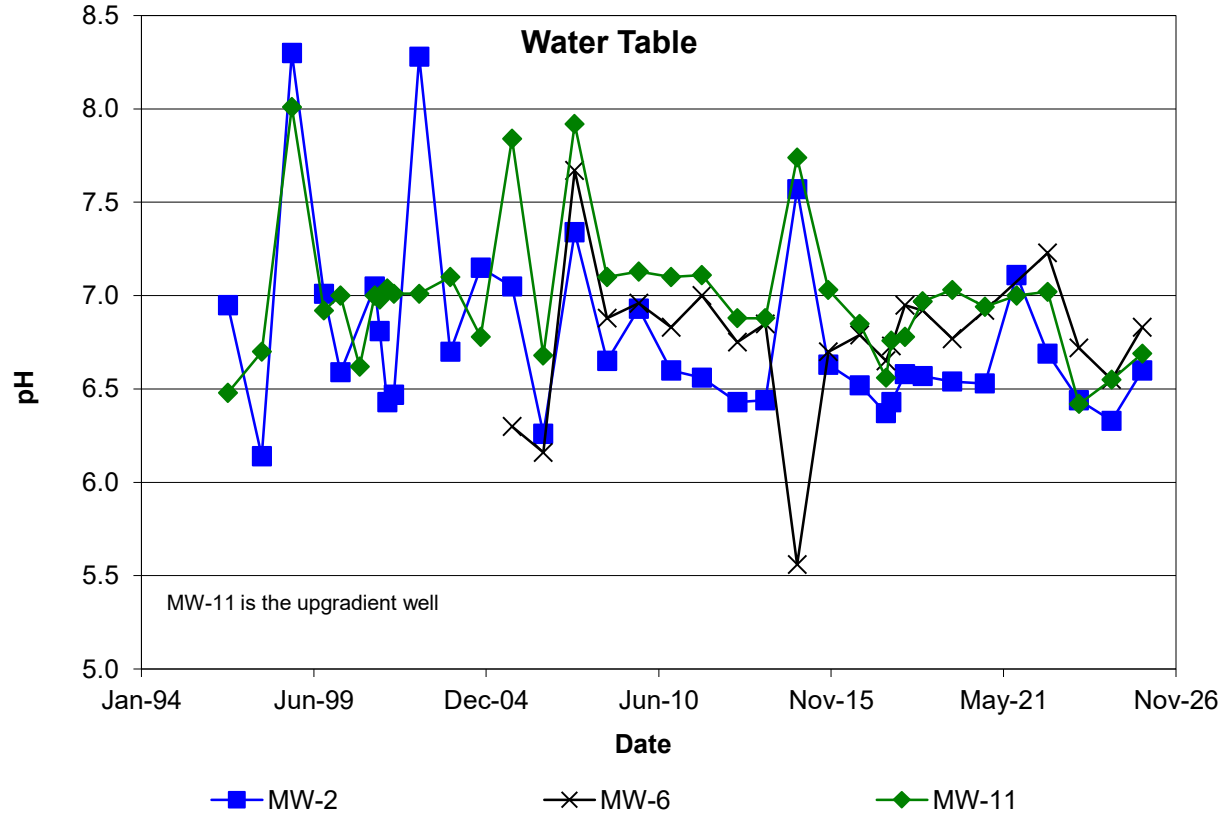

Uppermost Aquifer
MW-9 is upgradient well
HAL is 4 mg/L
Concentration (mg/L)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Dec-15 Dec-16 Dec-17 Dec-18 Dec-19 Dec-20 Dec-21 Dec-22 Dec-23 Dec-24 Dec-25 Dec-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
HA
UCL MW-9

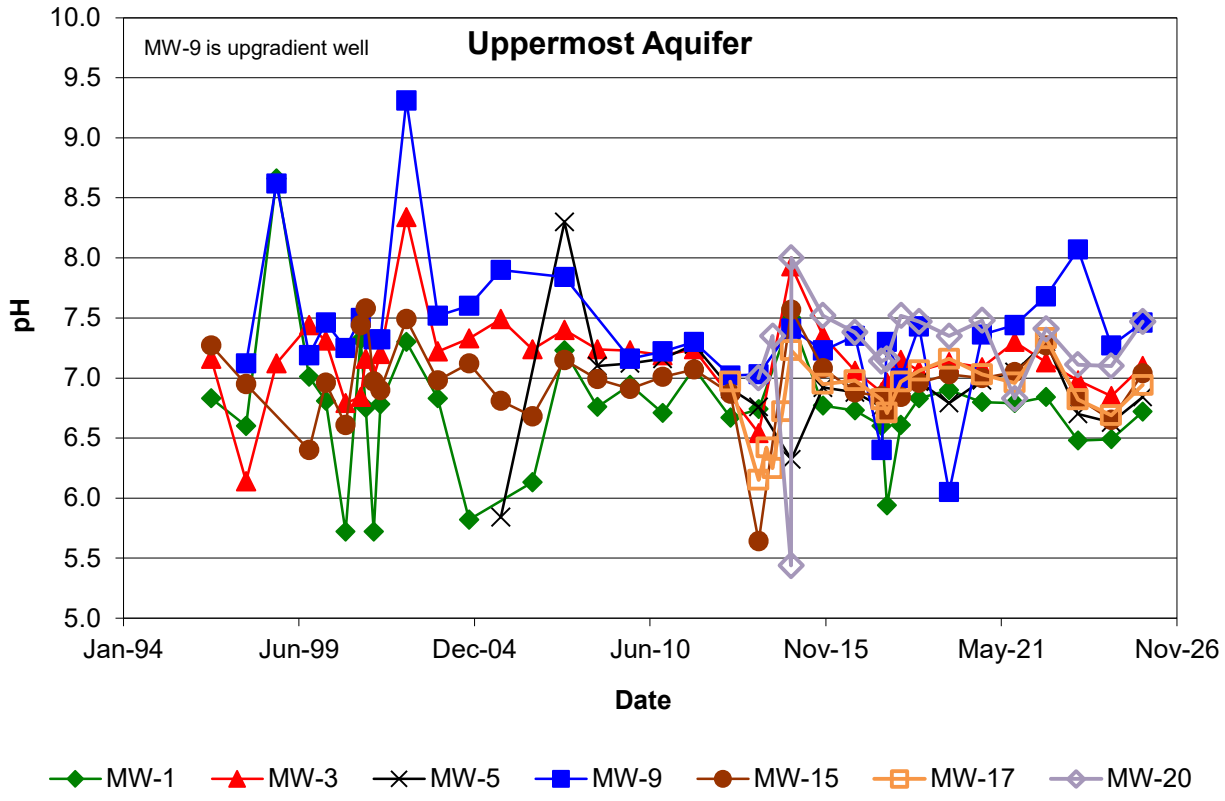
SULFATE


MW-11 is the upgradient well
Water Table
Concentration (mg/L)
1,200
1,000
800
600
400
200
0
Jan-94
Jun-99
Dec-04
Jun-10
Nov-15
May-21
Nov-26
Date
MW-2
MW-6
MW-11
SDWR
UCL MW-11

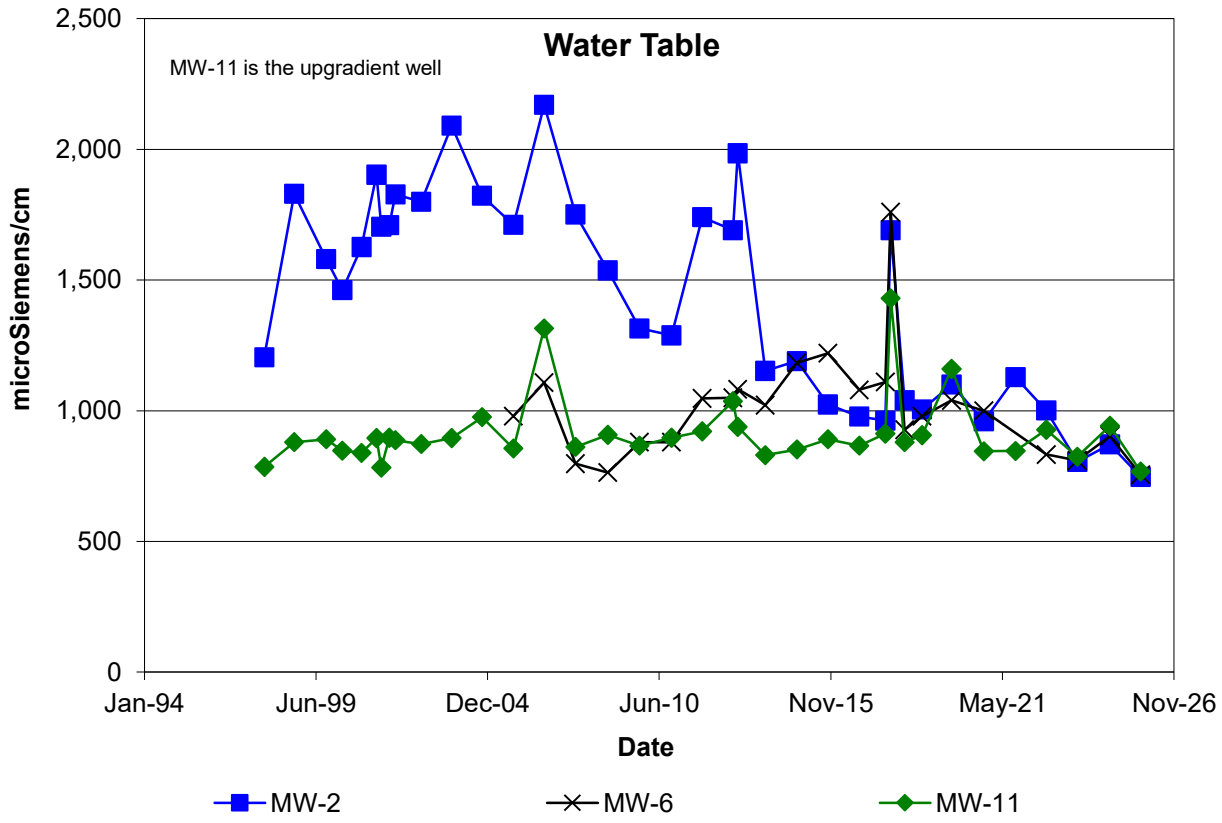

MW-9 is upgradient well
Uppermost Aquifer
Concentration (mg/L)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Jan-94
Jun-99
Dec-04
Jun-10
Nov-15
May-21
Nov-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20
SDWR
UCL MW-9

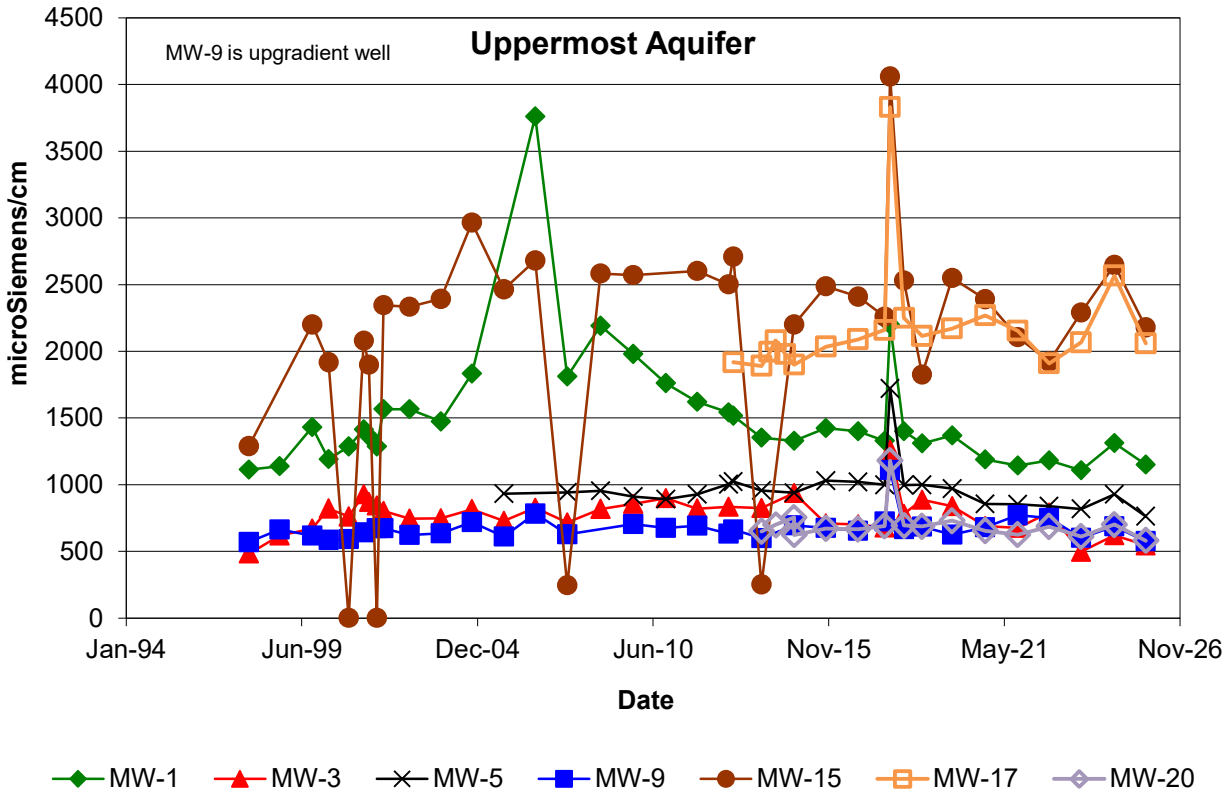
pH


Water Table
MW-11 is the upgradient well
pH
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
Jan-94
Jun-99
Dec-04
Jun-10
Nov-15
May-21
Nov-26
Date
MW-2
MW-6
MW-11

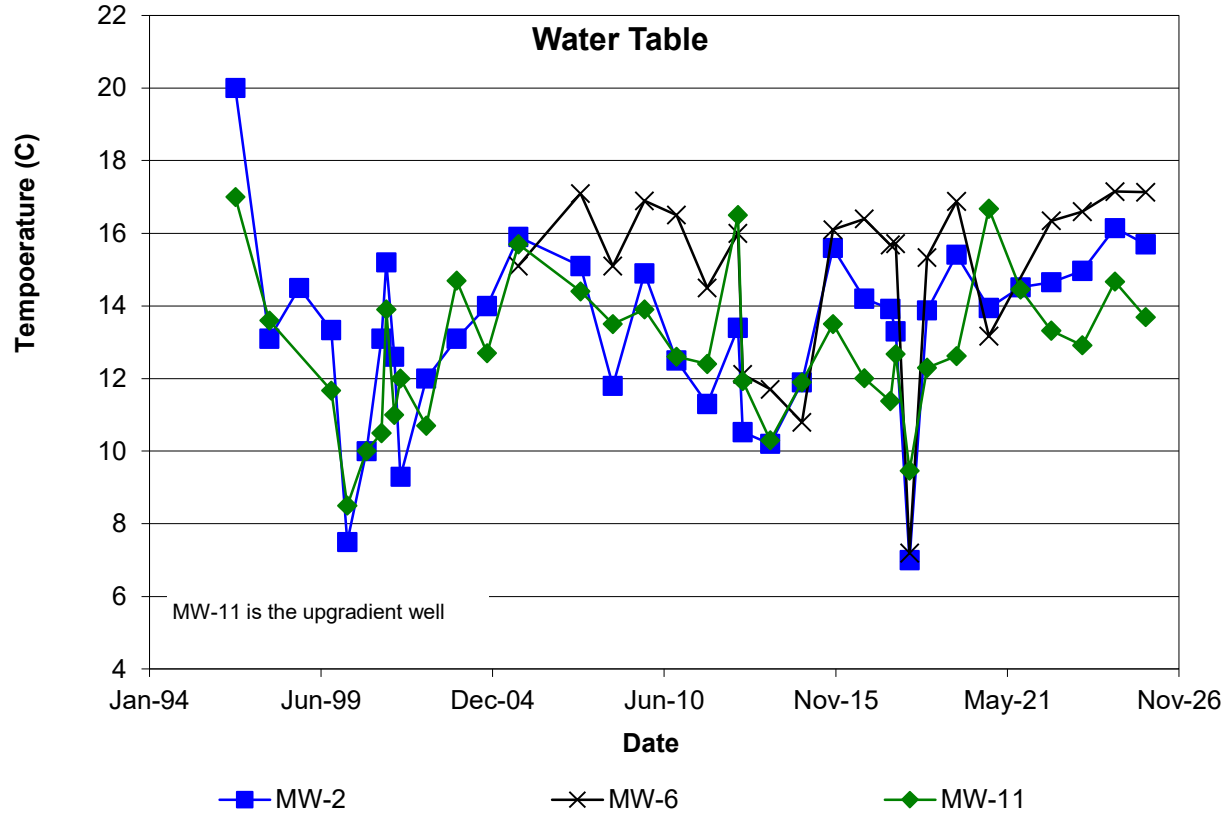

MW-9 is upgradient well
Uppermost Aquifer
pH
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
Jan-94
Jun-99
Dec-04
Jun-10
Nov-15
May-21
Nov-26
Date
MW-1
MW-3
MW-5
MW-9
MW-15
MW-17
MW-20

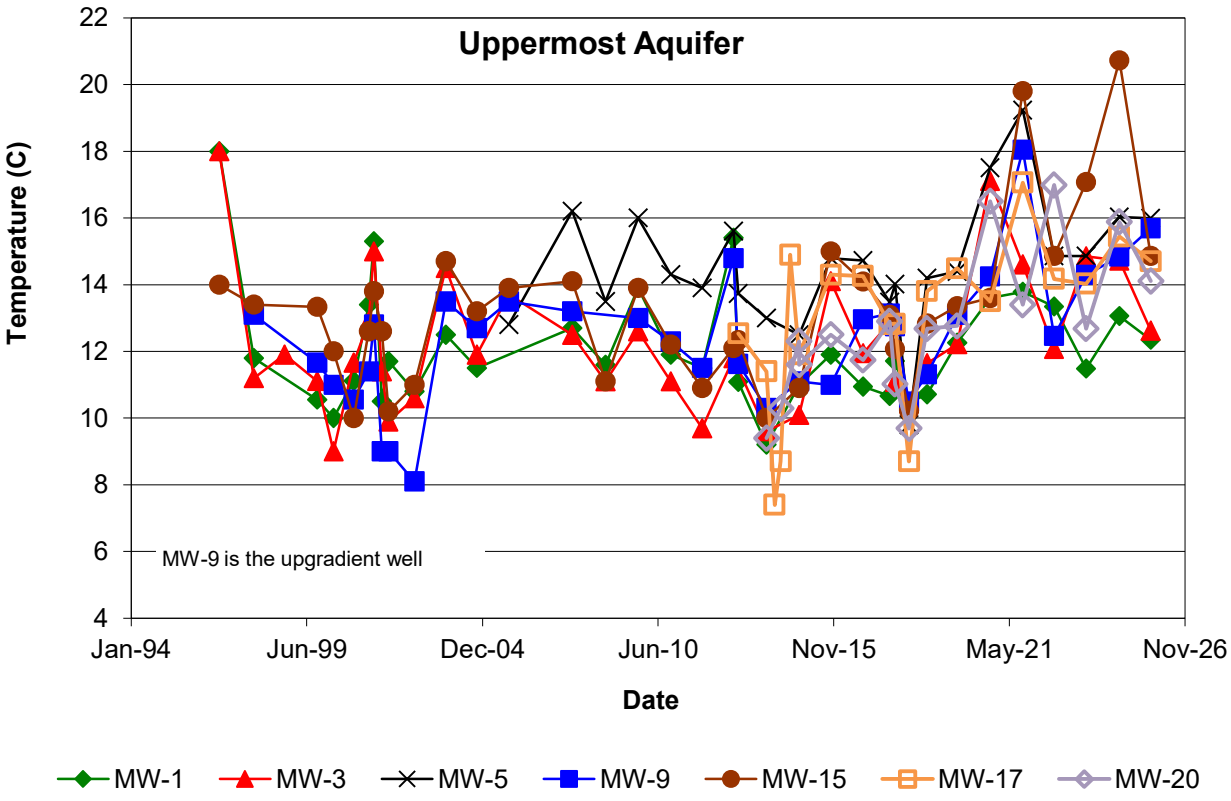
CONDUCTIVITY





TEMPERATURE





Appendix D

Inspection Summary

November 26, 2025

Brian Rath
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street, 4th Floor
Des Moines, IA 50319-0034

Dear Brian,

This letter has been prepared to provide a summary of monthly inspections completed by Central Iowa Power Cooperative (CIPCO) of the closed Fair Station Coal Combustion Residue Landfill near Muscatine, Iowa.

BACKGROUND

2015 activities included: final capping of the ash, terrace, and rip-rap channel installation and seeding in September. Vegetation was started to be established in most areas by the end of 2015. Straw waddles were installed in areas of slow growth and areas at risk of washing out. The closure permit was issued February 1, 2016.

2025 Inspection Summary and Actions

Above average rainfall in the summer of 2025 yielded healthy vegetation growth on the cap. The site was mowed twice, in addition to general reoccurring maintenance at the site. Seeded areas from 2024 germinated as expected, filling in mower scalped areas. These areas will continue to be monitored.

The main maintenance items conducted were: seeding of mower scalped areas, fence repair, tree removal, rip-rap channel cleaning, and general vegetation management throughout the site.

Clint Oberbroeckling of GHD conducted the annual well sampling in October.

CIPCO will continue to monitor and maintain the CCR Landfill according to the IDNR standards.

Regards,

Sam Honold, PE
Manager of Generation Engineering
Central Iowa Power Cooperative

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800.373.8011
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Cedar Rapids, IA 52406-2517
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