2022 Annual Groundwater Monitoring Report

Belle River Power Plant Bottom Ash Basins
4505 King Road
China Township, Michigan

January 2023

Prepared For:

DTE Electric Company

Prepared By:

TRC
1540 Eisenhower Place
Ann Arbor, Michigan 48108

Vincent E. Buening, C.P.G.
Senior Project Manager

David B. McKenzie, P.E.
Senior Project Engineer

Sarah B. Holmstrom, P.G.
Senior Hydrogeologist

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Executive Summary

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended. The CCR Rule, which became effective on October 19, 2015 (with amendments in 2018 and 2020), applies to the DTE Electric Company (DTE Electric) Belle River Power Plant (BRPP) Bottom Ash Basins (BABs) CCR unit. Pursuant to the CCR Rule, no later than January 31, 2018, and annually thereafter, the owner or operator of a CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e). On behalf of DTE Electric, TRC Engineers Michigan, Inc., the engineering entity of TRC, has prepared this Annual Groundwater Monitoring Report for calendar year 2022 activities at the BRPP BABs CCR unit.

The BRPP BABs CCR unit was operating under the detection monitoring program at the start of the 2022 annual reporting period and remained in the detection monitoring program through the end of the 2022 annual reporting period. The semiannual detection monitoring events for 2022 were completed in April and October 2022 and included sampling and analyzing groundwater within the groundwater monitoring system for the indicator parameters listed in Appendix III to the CCR Rule. As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify statistically significant increases (SSIs) in Appendix III parameters to determine if concentrations in groundwater exceed prediction limits. All the monitoring data that have been collected and evaluated under §257.90 through §257.98 in 2022 are presented in this report.

No new SSIs were observed through the 2022 monitoring period. Potential SSIs over prediction limits were noted for several Appendix III constituents in one or more monitoring wells during the April and October 2022 monitoring events. These potential SSIs were either not statistically significant (i.e. verification resampling did not confirm the exceedance) or were evaluated and determined to be a result of natural variability in groundwater quality as documented in alternate source demonstrations (ASDs) and not attributable to the BRPP BABs CCR unit. Therefore, detection monitoring will be continued at the BRPP BABs CCR unit in accordance with §257.94.

1.0 Introduction

1.1 Program Summary

On April 17, 2015, the United States Environmental Protection Agency (USEPA) published the final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended. The CCR Rule, which became effective on October 19, 2015 (with amendments in 2018 and 2020), applies to the DTE Electric Company (DTE Electric) Belle River Power Plant (BRPP) Bottom Ash Basins (BABs) CCR unit. Pursuant to the CCR Rule, no later than January 31, 2018, and annually thereafter, the owner or operator of a CCR unit must prepare an annual groundwater monitoring and corrective action report for the CCR unit documenting the status of groundwater monitoring and corrective action for the preceding year in accordance with §257.90(e). On behalf of DTE Electric, TRC Engineers Michigan, Inc., the engineering entity of TRC, has prepared this Annual Groundwater Monitoring Report for calendar year 2022 activities at the BRPP BABs CCR unit (2022 Annual Report).

This 2022 Annual Report presents the monitoring results and the statistical evaluation of the detection monitoring parameters (Appendix III to Part 257 of the CCR Rule) for the April and October 2022 semiannual groundwater monitoring events for the BRPP BABs CCR unit in addition to the alternative source demonstration for the second 2021 semiannual detection monitoring event (Appendix A). Detection monitoring for these events continued to be performed in accordance with the *CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin* (QAPP) (TRC, July 2016; revised August 2017) and statistically evaluated per the Stats Plan (TRC, October 2017). As part of the statistical evaluation, the data collected during detection monitoring events are evaluated to identify SSIs of detection monitoring parameters compared to background levels.

Additional site characterization was completed in late 2020 and in 2021 including additional soil borings, Cone Penetrometer Testing (CPT), soil sample collection for additional clay-rich soil, laboratory hydraulic conductivity testing, and additional slug testing (to measure the hydraulic conductivity of the uppermost aquifer in wells not previously tested) in support of the Preliminary Alternative Liner Demonstration that was submitted to the EPA on November 30, 2021 (Geosyntec, 2021). The PALD concludes that there is no reasonable probability that water from the BABs will cause releases to groundwater throughout the active life of the CCR unit at concentrations that will exceed the groundwater protection standard at the waste boundary.

1.2 Site Overview

The BRPP is located in Section 13, Township 4 North, Range 16 East, at 4505 King Road, China Township in St. Clair County, Michigan. The BRPP was constructed in the early 1980s with plant operations beginning in 1984. Prior to Detroit Edison Company's operations commencing in the 1980s, the BRPP property was generally wooded and farmland. The property has been used continuously as a coal fired power plant since Detroit Edison Company (now DTE Electric) began power plant operations at BRPP in 1984 and is generally constructed over a natural clay-rich soil base. The BABs have been in use by the BRPP since

it began operation and have collected CCR bottom ash that is periodically cleaned out and either sold for beneficial reuse or disposed of at the Range Road Landfill (RRLF).

The BRPP BABs are two adjacent physical sedimentation basins that are slightly raised CCR surface impoundments referred to as the North and South BABs, located north of the BRPP. These are considered one CCR unit. The BABs receive sluiced bottom ash and other process flow water from the power plant. Discharge water from each BAB flows over an outlet weir that gravity flows to a site storm water conveyance network of ditches and pipes, then flows into the diversion basin (DB) CCR unit, which is monitored as a separate CCR unit in accordance with the CCR Rule and addressed in a separate 2022 Annual Report.

The DB is an incised CCR surface impoundment located east of the BRPP. Water flows into the DB from the North and South BABs through a network of pipes and ditches. The DB discharges to the St. Clair River with other site wastewater in accordance with a National Pollution Discharge Elimination System (NPDES) permit.

1.3 Geology/Hydrogeology

The BRPP BABs CCR unit is located approximately one mile west of the St. Clair River. The BRPP BABs CCR unit is underlain by more than 100 feet of unconsolidated sediments, with the lower confining Bedford Shale generally encountered from 140 to 150 feet below ground surface (bgs). In general, the BRPP BABs CCR unit is initially underlain by at least 90 to as much as 130 feet of laterally extensive low hydraulic conductivity silty clay-rich deposits (TRC, 2017 and Geosyntec, 2021). The depth to the top of the confined sand-rich uppermost aquifer encountered immediately beneath the silty clay-rich deposits varies up to 50 feet within the monitoring well network and rapidly thins to the south and east of the BABs and pinches out (i.e., no longer present) to the southeast in the vicinity of SB-16-01 (Figure 1). Consequently, the uppermost aquifer is not laterally contiguous across the entire BRPP BABs CCR unit, and not present beneath the southeastern corner of the BABs.

The variability in the depth to the uppermost aquifer is a consequence of the heterogeneity of the glacial deposits and is driven by the lateral discontinuity of the sand outwash within the encapsulating fine-grained, silty clay till that confines the uppermost aquifer. There is an apparent lack of interconnection and/or significant vertical variation between the uppermost aquifer sand unit(s) encountered across the BRPP BABs CCR unit as demonstrated by the extensive amount of time (months) it took for water levels in monitoring well MW-16-02 to reach equilibrium after well construction and development (TRC, 2017).

Given the horizontally expansive clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit, the heterogeneity of the glacial deposits (with the top of the uppermost aquifer elevation across the BABs, where present varying up to 46 feet vertically), the no flow boundary where no sand or gravel is present in the southeastern portion of the BABs CCR unit area, and the apparent lack of hydraulic interconnectedness of the uppermost aquifer encountered at the BABs in some areas, it is not appropriate to infer horizontal flow direction or gradients across the BRPP BABs CCR unit.

2.0 Groundwater Monitoring

2.1 Monitoring Well Network

A groundwater monitoring system has been established for the BRPP BABs CCR unit as detailed in the Groundwater Monitoring System Summary Report – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin Coal Combustion Residual Units (GWMS Report) (TRC, October 2017). The detection monitoring well network for the BABs CCR unit currently consists of five monitoring wells that are screened in the uppermost aquifer. Monitoring wells MW-16-01 through MW-16-04 and MW-16-09 are located around the north, east and south perimeter of the BABs and provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (total of five background/downgradient monitoring wells). The monitoring well locations are shown on Figure 2.

2.2 Semiannual Groundwater Monitoring

The semiannual monitoring parameters for the detection monitoring program were selected per the CCR Rule's Appendix III to Part 257 – Constituents for Detection Monitoring. The Appendix III indicator parameters consist of boron, calcium, chloride, fluoride, pH (field reading), sulfate, and total dissolved solids (TDS) and were analyzed in accordance with the sampling and analysis plan included within the QAPP. In addition to pH, the collected field parameters included dissolved oxygen, oxidation reduction potential, specific conductivity, temperature, and turbidity.

2.2.1 Data Summary

The first semiannual detection monitoring event for 2022 was performed on April 7, 2022 by TRC personnel and samples were analyzed by Eurofins Environment Testing America (Eurofins) in accordance with the QAPP. Static water elevation data were collected at all five monitoring well locations. Groundwater samples were collected from the five detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the April 2022 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 3 (analytical results).

The second semiannual detection monitoring event for 2022 was performed on October 12, 2022 by TRC personnel and samples were analyzed by Eurofins in accordance with the QAPP. Static water elevation data were collected at all five monitoring well locations. Groundwater samples were collected from the five detection monitoring wells for the Appendix III indicator parameters and field parameters. A summary of the groundwater data collected during the October 2022 event is provided on Table 1 (static groundwater elevation data), Table 2 (field data), and Table 4 (analytical results). The laboratory analytical reports for each detection monitoring event are included in Appendix B.

2.2.2 Data Quality Review

Data from each round were evaluated for completeness, overall quality and usability, method-specified sample holding times, precision and accuracy, and potential sample contamination. The data were found to be complete and usable for the purposes of the CCR monitoring program. Data quality reviews are summarized in Appendix C.

2.2.3 Groundwater Flow Rate and Direction

As presented in the GWMS Report, and mentioned above, given the horizontally expansive clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit; the heterogeneity of the glacial deposits (with the top of the uppermost aquifer elevation across the BABs; where present, varying up to 46 feet vertically); the no flow boundary where no sand or gravel is present in the southeastern portion of the BRPP BABs CCR unit area; and the apparent lack of hydraulic interconnectedness of the uppermost aquifer encountered at the BABs in some areas, it is not appropriate to infer horizontal flow direction or gradients across the site. Groundwater elevations measured across the Site during the April 2022 sampling event are provided on Table 1 and are summarized in plan view on Figure 3. Groundwater elevations measured across the Site during the October 2022 sampling event are provided on Table 1 and are summarized in plan view on Figure 4.

Groundwater elevation data collected during the 2022 sampling events show that groundwater conditions within the uppermost aquifer are consistent with previous monitoring events and continue to demonstrate that the monitoring wells are appropriately positioned to detect the presence of Appendix III parameters that could potentially migrate from the BRPP BABs CCR unit.

3.0 Statistical Evaluation

3.1 Establishing Background Limits

As discussed in the Stats Plan, intrawell statistical methods for the BABs CCR unit were selected based on the geology and hydrogeology at the Site (primarily the presence of clay/hydraulic barrier, the variability in the presence of the uppermost aquifer across the site, and presence of no flow boundary on the southeast side of the aquifer), in addition to other supporting lines of evidence that the aquifer is unaffected by the CCR unit (such as the consistency in concentrations of water quality data). An intrawell statistical approach requires that each downgradient well doubles as a background and compliance well, where data from each individual well during a detection monitoring event is compared to a statistical limit developed using the background dataset from that same well.

Per the Stats Plan, background limits were established for the Appendix III indicator parameters following the collection of at least eight background monitoring events using data collected from each of the five established detection monitoring wells (MW-16-01 through MW-16-04 and MW-16-09). The initial statistical evaluation of the background data is presented in the 2017 Annual Report. The Appendix III background limits for each monitoring well will be used throughout the detection monitoring period to determine whether groundwater has been impacted from the BRPP BABs CCR unit by comparing concentrations in the detection monitoring wells to their respective background limits for each Appendix III indicator parameter.

Prediction limits are periodically updated to reflect the additional data and additional temporal variability observed over time. The Appendix III prediction limits for the BRPP BAB were updated in December 2021 to incorporate additional data collected since 2017 as presented in the December 15, 2021 *Technical Memorandum, Prediction Limit Update – DTE Electric Company, Belle River Power Plant Bottom Ash Basin* (included as Appendix C in the *2021 Annual Groundwater Monitoring Report – DTE Electric Company, Belle River Power Plant Bottom Ash Basins Coal Combustion Residual Unit*, TRC, January 2022).

3.2 Data Comparison to Background Limits – First Semiannual Event (April 2022)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-16-01 through MW-16-04 and MW-16-09) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-16-01 is compared to the background limit developed using the background dataset from MW-16-01, and so forth).

The comparisons of the April 2022 monitoring event data to background limits are presented on Table 3. The statistical evaluation of the April 2022 Appendix III indicator parameters showed potential initial SSIs over background for:

- Calcium at MW-16-01; and
- Sulfate at MW-16-02.

The sulfate exceedance at MW-16-01 during the first semiannual event in April 2022 has previously been demonstrated to be from natural variability and is not from a release from the CCR unit as presented in the still applicable August 2021 ASD that was included in the 2021 Annual Report. Similarly, the calcium exceedance at MW-16-09 during the first semiannual event in April 2022 has previously been demonstrated to be from natural variability and is not from a release from the CCR unit as presented in the still applicable February 2022 ASD that is included as Appendix A.

3.3 Verification Resampling for the First Semiannual Event

Verification resampling is performed per the Stats Plan and the *USEPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (Unified Guidance, USEPA, 2009) to achieve performance standards as specified by §257.93(g) in the CCR Rule. Per the Stats Plan, if there is an exceedance of a prediction limit for one or more of the parameters, the well(s) of concern will be resampled within 30 days of the completion of the initial statistical analysis. Only constituents that initially exceed their statistical limit (i.e., have no previously recorded SSIs) will be analyzed for verification purposes.

Verification resampling for the April 2022 event was conducted on May 9, 2022 by TRC personnel. Groundwater samples were collected for calcium at MW-16-01 and sulfate at MW-16-02, in accordance with the QAPP. A summary of the analytical results collected during the resampling event is provided on Table 3. The associated data quality review is included in Appendix C.

The verification results for calcium at MW-16-01 and sulfate at MW-16-02 are below their respective prediction limits. Therefore, in accordance with the Stats Plan and the Unified Guidance, the initial exceedances are not statistically significant, and no SSIs will be recorded for the April 2022 detection monitoring event.

3.4 Data Comparison to Background Limits – Second Semiannual Event (October 2022)

The concentrations of the indicator parameters in each of the detection monitoring wells (MW-16-01 through MW-16-04 and MW-16-09) were compared to their respective statistical background limits calculated from the background data collected from each individual well (i.e., monitoring data from MW-16-01 is compared to the background limit developed using the background dataset from MW-16-01, and so forth).

The comparisons of the October 2022 monitoring event are presented on Table 4. The statistical evaluation of the October 2022 Appendix III indicator parameters showed a potential initial SSI over background for:

- Sulfate at MW-16-02

The sulfate exceedance at MW-16-01 during the Second Semiannual Event in October 2022 has previously been demonstrated to be from natural variability and is not from a release from the CCR unit as presented in the still applicable August 2021 ASD that was included in the 2021 Annual Report. The calcium exceedance at MW-16-09 has previously been demonstrated to be

from natural variability and is not from a release from the CCR unit as presented in the still applicable February 2022 ASD that is included in this report (Appendix A).

3.5 Verification Resampling for the Second Semiannual Event

Verification resampling for the October 2022 event was conducted on December 1, 2022 by TRC personnel. A groundwater sample was collected for sulfate at MW-16-02 in accordance with the QAPP. A summary of the analytical results collected during the resampling event is provided on Table 4. The associated data quality review is included in Appendix B.

The verification sampling result for sulfate at MW-16-02 is below the prediction limit. Therefore, in accordance with the Stats Plan and the Unified Guidance, the original exceedance is not statistically significant, and no SSI will be recorded for the October 2022 detection monitoring sampling event.

4.0 Conclusions and Recommendations

No SSIs over prediction limits were recorded for the Appendix III constituents in the downgradient wells during the 2022 monitoring period. Therefore, detection monitoring will be continued at the BRPP BABs CCR unit in accordance with §257.94. As discussed above and in the GWMS Report as well as the PALD, with the laterally contiguous clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit there is no reasonable probability for the uppermost aquifer to be affected by CCR from BRPP operations.

No corrective actions were performed in 2022. The next semiannual monitoring event is scheduled for the second calendar quarter of 2023.

5.0 Groundwater Monitoring Report Certification

The U.S. EPA's Disposal of Coal Combustion Residuals from Electric Utilities Final Rule Title 40 CFR Part 257 §257.90(e) requires that the owner or operator of an existing CCR unit prepare an annual groundwater monitoring and corrective action report.

Annual Groundwater Monitoring Report Certification
Belle River Power Plant Bottom Ash Basins
China Township, Michigan

CERTIFICATION

I hereby certify that the annual groundwater and corrective action report presented within this document for the BRPP BABs CCR unit has been prepared to meet the requirements of Title 40 CFR §257.90(e) of the Federal CCR Rule. This document is accurate and has been prepared in accordance with good engineering practices, including the consideration of applicable industry standards, and with the requirements of Title 40 CFR §257.90(e).

Name: David B. McKenzie, P.E.	Expiration Date: December 17, 2023	
Company: TRC Engineers Michigan, Inc.	Date: January 31, 2023	1/31/23

6.0 References

Geosyntec Consultants (Geosyntec). November 2021. Preliminary Alternative Liner Demonstration Bottom Ash Basins, DTE Electric Company Belle River Power Plant, China Township, Michigan

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USEPA. July 2018. 40 CFR Part 257. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One); Final Rule. 83 Federal Register 146 (July 30, 2018), pp. 36435-36456 (83 FR 36435).

USEPA. April 2018. Barnes Johnson (Office of Resource Conservation and Recovery) to James Roewer (c/o Edison Electric Institute) and Douglas Green, Margaret Fawal (Venable LLP). Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements. April 30, 2018. United States Environmental Protection Agency, Washington, D.C. 20460. Office of Solid Waste and Emergency Response, now the Office of Land and Emergency Management.

Tables

Table 1
Summary of Groundwater Elevation Data – April and October 2022
Belle River Power Plant Bottom Ash Basins – RCRA CCR Monitoring Program
China Township, Michigan

Well ID	MW-16-01		MW-16-02		MW-16-03		MW-16-04		MW-16-09	
Date Installed	3/17/2016		3/15/2016		6/1/2016		3/8/2016		6/2/2016	
TOC Elevation	590.06		588.94		590.66		590.51		590.80	
Geologic Unit of Screened Interval	Sand		Sand		Silty Sand		Sand		Sand	
Screened Interval Elevation	496.3 to 491.3		494.3 to 489.3		456.0 to 451.0		468.5 to 463.5		452.3 to 447.3	
Unit	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft	ft BTOC	ft
Measurement Date	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation	Depth to Water	GW Elevation
04/07/2022	15.46	574.60	13.00	575.94	15.74	574.92	16.10	574.41	15.96	574.84
10/12/2022	16.00	574.06	13.78	575.16	16.18	574.48	16.70	573.81	16.58	574.22

Notes:

Elevations are reported in feet relative to the North American Vertical Datum of 1988.

ft BTOC - feet Below top of casing.

Table 2
Summary of Field Data – April to December 2022
Belle River Power Plant Bottom Ash Basins – RCRA CCR Monitoring Program
China Township, Michigan

Sample Location	Sample Date	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Specific Conductivity (umhos/cm)	Temperature (deg C)	Turbidity (NTU)
MW-16-01	4/7/2022	3.31	-167.1	7.6	1,467	11.4	2.42
	5/9/2022[(1)]	1.25	-109.1	7.6	1,408	11.6	1.81
	10/12/2022	0.34	-126.0	7.4	1,761	13.2	4.50
MW-16-02	4/7/2022	0.89	-258.5	7.6	1,489	10.9	5.75
	5/9/2022[(1)]	1.25	-76.2	7.4	1,146	13.3	3.89
	10/12/2022	0.51	-100.3	7.3	1,384	13.2	3.50
	12/1/2022[(2)]	0.01	-200.4	7.5	992	9.0	3.53
MW-16-03	4/7/2022	0.76	-291.0	7.8	2,134	11.2	3.55
	10/12/2022	1.22	-69.00	7.8	2,000	14.9	3.20
MW-16-04	4/7/2022	1.05	-220.2	7.8	1,506	11.3	4.16
	10/12/2022	0.37	-149.8	7.6	1,814	16.9	10.0
MW-16-09	4/7/2022	0.93	-236.1	7.8	2,614	11.3	51.2
	10/12/2022	0.88	-150.1	7.7	3,164	13.4	184

Notes:

mg/L - milligrams per liter.

mV - milliVolt.

SU - standard unit.

umhos/cm - micro-mhos per centimeter.

deg C - degrees celcius.

NTU - nephelometric turbidity units.

(1) Results shown for verification sampling performed on 5/9/2022.

(2) Results shown for verification sampling performed on 12/1/2022.

Table 3
Comparison of Appendix III Parameter Results to Background Limits – April and May 2022
Belle River Power Plant BABs – RCRA CCR Monitoring Program
China Township, Michigan

Sample Location:		MW-16-01			MW-16-02			MW-16-03		MW-16-04		MW-16-09	
Sample Date:		4/7/2022	5/9/2022[1]	PL	4/7/2022	5/9/2022[1]	PL	4/7/2022	PL	4/7/2022	PL	4/7/2022	PL
Constituent	Unit	Data			Data			Data		Data		Data	
Appendix III													
Boron	ug/L	1,100	--	1,300	1,200	--	1,300	1,200	1,200	1,100	1,200	1,500	1,900
Calcium	ug/L	**49,000**	40,000	44,000	56,000	--	58,000	35,000	35,000	46,000	60,000	**90,000[2]**	42,000
Chloride	mg/L	440	--	510	350	--	390	580	800	460	520	1,000	1,100
Fluoride	mg/L	1.5	--	1.9	1.1	--	1.3	1.7	1.9	1.6	1.8	1.4	1.7
pH, Field	su	7.6	--	7.0 - 8.1	7.6	--	7.3 - 8.0	7.8	7.5 - 8.2	7.8	7.6 - 8.2	7.8	7.7 - 8.6
Sulfate	mg/L	**60[3]**	--	14	**21**	14	15	< 1.0	5.9	32	36	13	37
Total Dissolved Solids	mg/L	860	--	970	710	--	910	980	1,100	950	1,100	1,700	2,000

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

-- = not analyzed

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

(1) - Results shown for verification sampling performed on 5/9/2022.

(2) - Exceedance was determined to be from an alternate source in the Second 2021 Semiannual alternative source demonstration dated 2/24/2022.

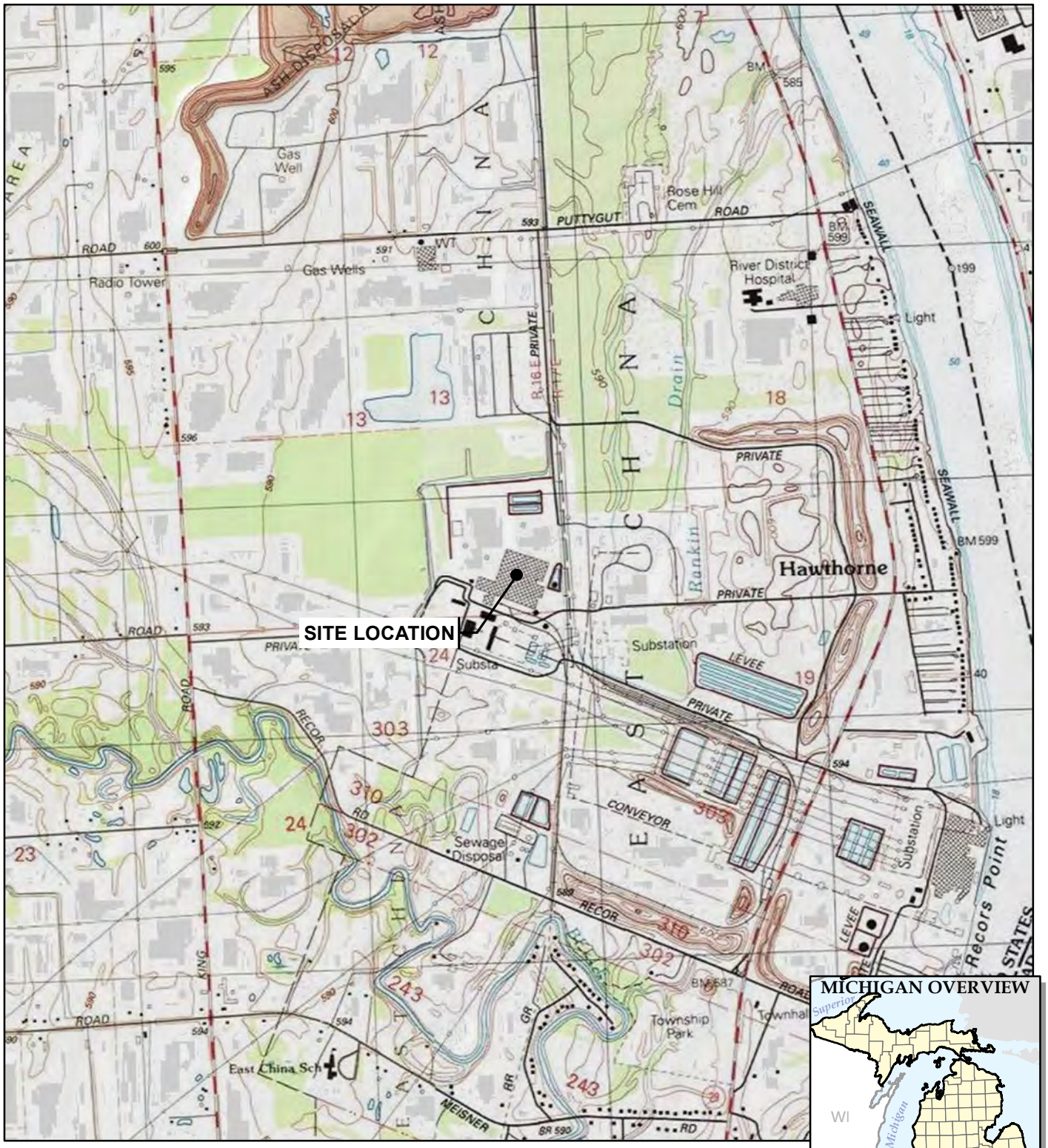
(3) - Exceedance was determined to be from an alternate source in the First 2021 Semiannual alternative source demonstration dated 8/16/2021.

Table 4
Comparison of Appendix III Parameter Results to Background Limits – October and December 2022
Belle River Power Plant BABs – RCRA CCR Monitoring Program
China Township, Michigan

Sample Location:		MW-16-01		MW-16-02			MW-16-03		MW-16-04		MW-16-09	
Sample Date:		10/12/2022	PL	10/12/2022	12/1/2022[1]	PL	10/12/2022	PL	10/12/2022	PL	10/12/2022	PL
Constituent	Unit	Data		Data			Data		Data		Data	
Appendix III												
Boron	ug/L	950	1,300	1,100	--	1,300	1,000	1,200	1,000	1,200	1,400	1,900
Calcium	ug/L	43,000	44,000	57,000	--	58,000	33,000	35,000	42,000	60,000	**57,000**[2]	42,000
Chloride	mg/L	450	510	350	--	390	570	800	480	520	950	1,100
Fluoride	mg/L	1.6	1.9	1.1	--	1.3	1.7	1.9	1.6	1.8	1.4	1.7
pH, Field	su	7.4	7.0 - 8.1	7.3	--	7.0 - 8.0	7.8	7.5 - 8.2	7.6	7.6 - 8.2	7.7	7.7 - 8.6
Sulfate	mg/L	**35**[3]	14	**17**	15	15	< 1	5.9	26	36	13	37
Total Dissolved Solids	mg/L	880	970	720	--	910	1,100	1,100	970	1,100	1,600	2,000

Notes:
ug/L - micrograms per liter.
mg/L - milligrams per liter.
SU - standard units; pH is a field parameter.
All metals were analyzed as total unless otherwise specified.
Bold font indicates an exceedance of the Prediction Limit (PL).
(1) - Results shown for verification sampling performed on 12/1/2022.
(2) - Exceedance was determined to be from an alternate source in the Second 2021 Semiannual alternative source demonstration dated 2/24/2022.
(3) - Exceedance was determined to be from an alternate source in the First 2021 Semiannual alternative source demonstration dated 8/16/2021.

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC

1540 Eisenhower Place
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TRC - GIS

PROJECT:

DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT
4505 KING ROAD
CHINA TOWNSHIP, MICHIGAN

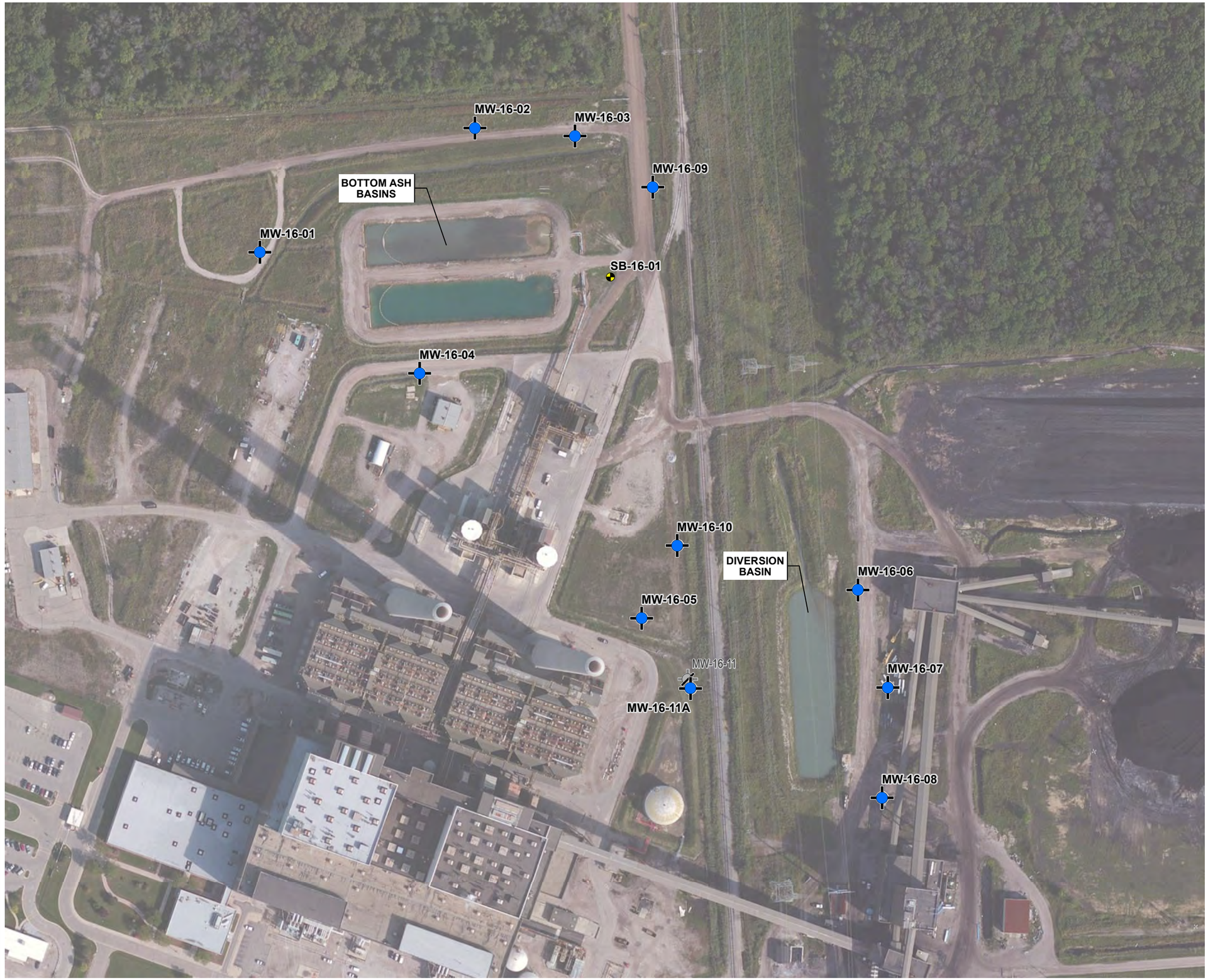
TITLE:

SITE LOCATION MAP

DRAWN BY:	A. FOJTIK
CHECKED BY:	J. KRENZ
APPROVED BY:	V. BUENING
DATE:	JANUARY 2023
PROJ. NO.:	413591.0003
FILE:	413591-0003-008.mxd

FIGURE 1

E:\Projects\DTE\CCR_Sites\2017_265996\413591-0003-008.mxd -- Saved By: AFOJTIK on 11/24/2021, 14:14:43 PM



LEGEND

- SOIL BORING
- MONITORING WELL
- DECOMMISSIONED MONITORING WELL

NOTES

1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (08/13/2021).
2. WELL LOCATIONS SURVEYED IN MARCH, APRIL, JUNE 2016, AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.

N

0 200 400 Feet

1 " = 200 '

1:2,400

PROJECT:	DTE ELECTRIC COMPANY BELLE RIVER POWER PLANT 4505 KING ROAD CHINA TOWNSHIP, MICHIGAN
TITLE:	SITE PLAN
DRAWN BY: A. FOJTIK	PROJ NO.: 461816.0003
CHECKED BY: J. KRENZ	FIGURE 2
APPROVED BY: V. BUENING	
DATE: JANUARY 2023	

TRC
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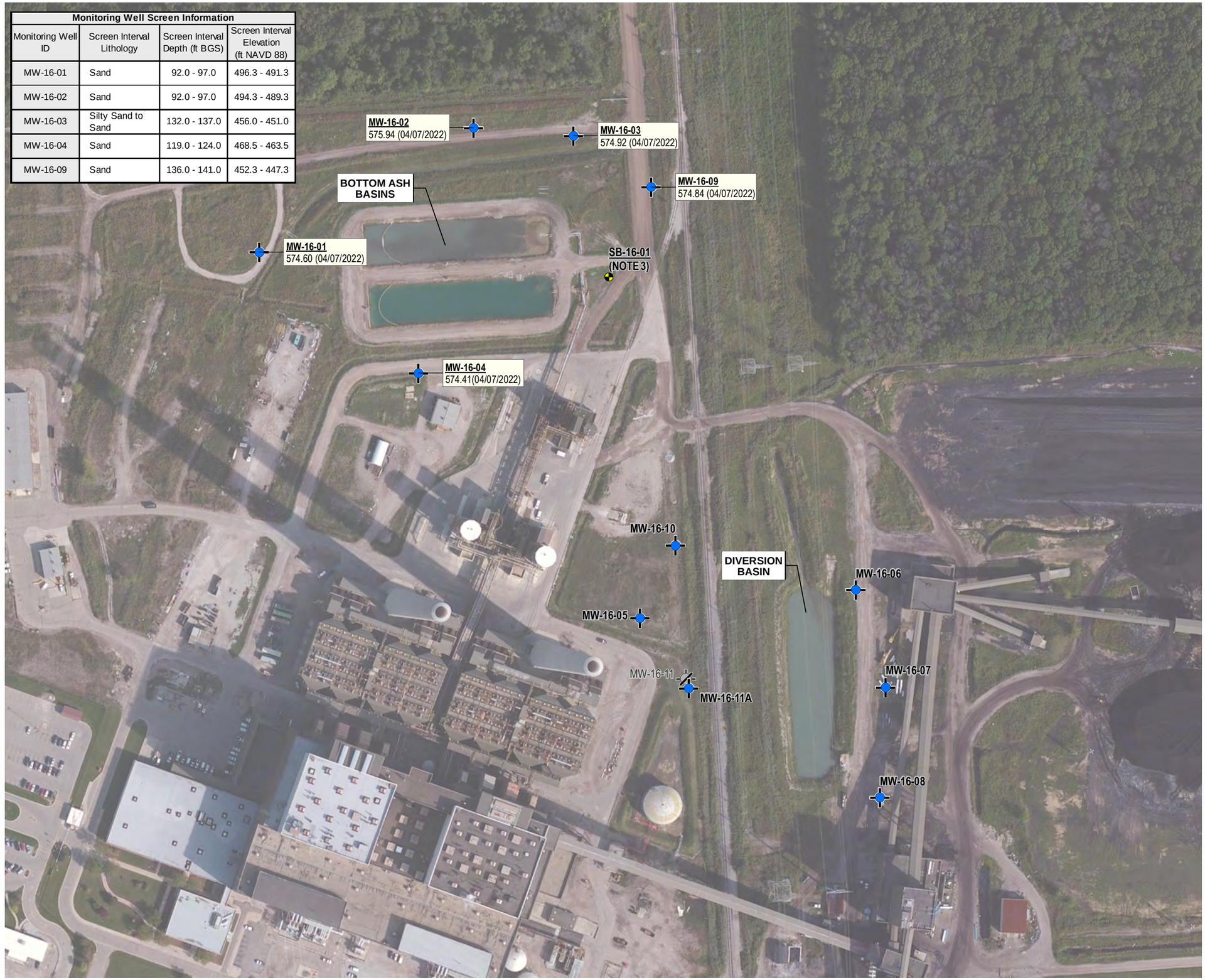
FILE NO.: 461816-0003_002.mxd

TRC - GIS
Plot Date: 1/11/2023, 08:39:09 AM by AFOJTIK -- LAYOUT: ANSI B(11"x17")
Path: E:\DTE\CCR_Sites\2017_265996\461816-0003_002.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

Monitoring Well Screen Information			
Monitoring Well ID	Screen Interval Lithology	Screen Interval Depth (ft BGS)	Screen Interval Elevation (ft NAVD 88)
MW-16-01	Sand	92.0 - 97.0	496.3 - 491.3
MW-16-02	Sand	92.0 - 97.0	494.3 - 489.3
MW-16-03	Silty Sand to Sand	132.0 - 137.0	456.0 - 451.0
MW-16-04	Sand	119.0 - 124.0	468.5 - 463.5
MW-16-09	Sand	136.0 - 141.0	452.3 - 447.3



LEGEND

- SOIL BORING
- MONITORING WELL
- DECOMMISSIONED MONITORING WELL

MW ID
GROUNDWATER ELEVATION (DATE)

FT BGS
FEET BELOW GROUND SURFACE
FT NAVD 88
ELEVATION RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO, (3/23/2019).
2. WELL LOCATIONS SURVEYED IN MARCH, APRIL AND JUNE 2016 AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.
3. NO SAND OR GRAVEL UNIT PRESENT ABOVE BEDROCK IN THIS LOCATION.

0 200 400 Feet

1 " = 200 '
1:2,400

PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT BOTTOM ASH BASIN
4505 KING ROAD
CHINA TOWNSHIP, MICHIGAN

TITLE:
BOTTOM ASH BASINS GROUNDWATER POTENTIOMETRIC ELEVATION SUMMARY APRIL 2022

DRAWN BY:	A. FOJTIK	PROJ NO.:	461816.0003
CHECKED BY:	J. KRENZ		
APPROVED BY:	V. BUENING		
DATE:	JULY 2022		

FIGURE 3

TRC
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Phone: 734.971.7080
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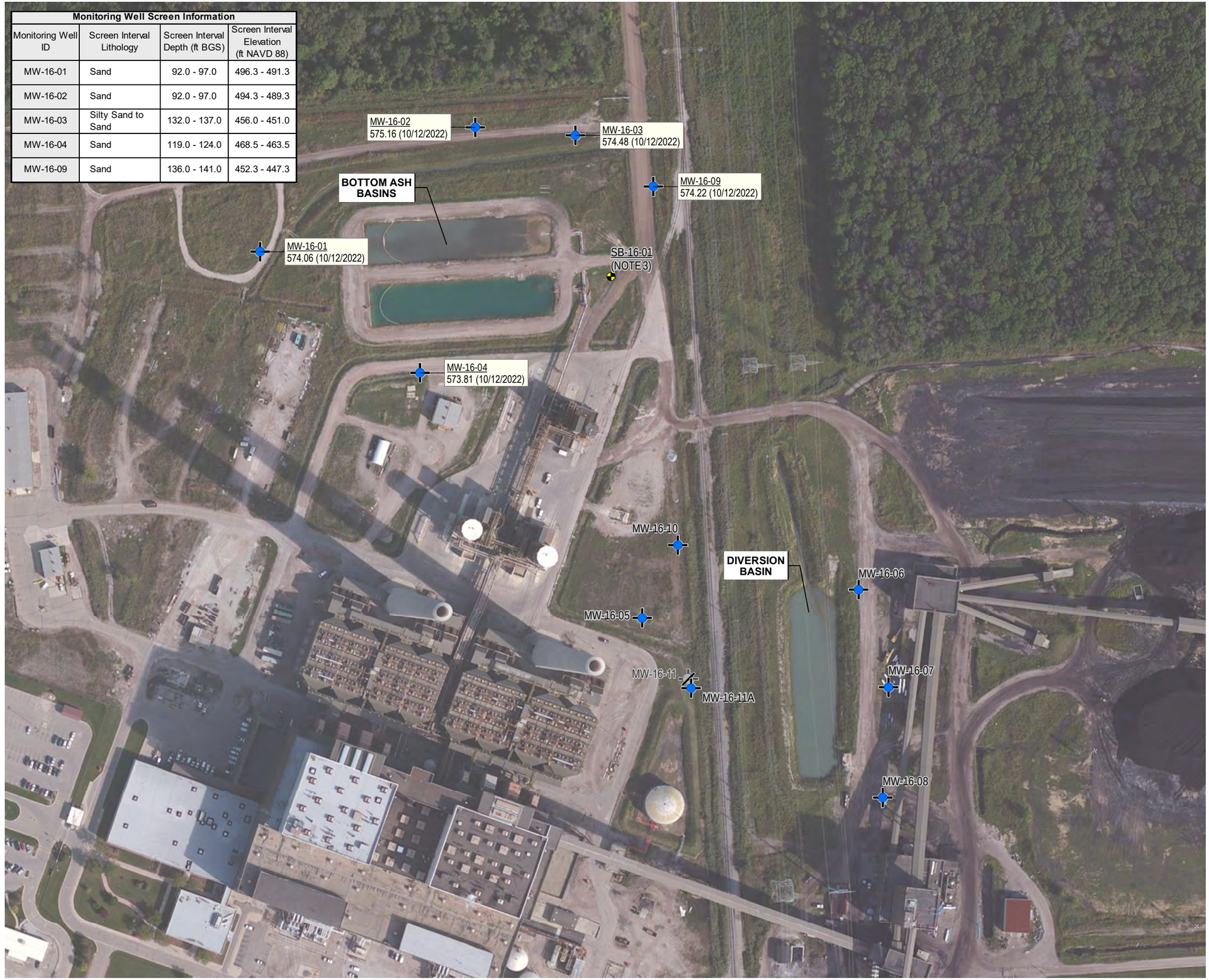
FILE NO.: 461816-0003_003A.mxd

Plot Date: 5/12/2022, 17:05:53 PM by AFOJTIK -- LAYOUT: ANSI B (11"x17")
Path: E:\Projects\DTE\CCR_Sites\2017_265996\461816-0003_003A.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

TRC - GIS

Monitoring Well Screen Information			
Monitoring Well ID	Screen Interval Lithology	Screen Interval Depth (ft BGS)	Screen Interval Elevation (ft NAVD 88)
MW-16-01	Sand	92.0 - 97.0	496.3 - 491.3
MW-16-02	Sand	92.0 - 97.0	494.3 - 489.3
MW-16-03	Silty Sand to Sand	132.0 - 137.0	456.0 - 451.0
MW-16-04	Sand	119.0 - 124.0	468.5 - 463.5
MW-16-09	Sand	136.0 - 141.0	452.3 - 447.3



LEGEND

- SOIL BORING
- MONITORING WELL
- DECOMMISSIONED MONITORING WELL

MW ID
GROUNDWATER ELEVATION (DATE)

FT BGS
FEET BELOW GROUND SURFACE
FT NAVD 88
ELEVATION RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO, (3/23/2019).
2. WELL LOCATIONS SURVEYED IN MARCH, APRIL AND JUNE 2016 AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.
3. NO SAND OR GRAVEL UNIT PRESENT ABOVE BEDROCK IN THIS LOCATION.

N

0 200 400 Feet

1 " = 200 '
1:2,400

PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT BOTTOM ASH BASIN
4505 KING ROAD
CHINA TOWNSHIP, MICHIGAN

TITLE:
BOTTOM ASH BASINS GROUNDWATER POTENTIOMETRIC ELEVATION SUMMARY OCTOBER 2022

DRAWN BY:	A. FOJTIK	PROJ NO.:	413591.0003
CHECKED BY:	J. KRENZ		
APPROVED BY:	V. BUENING		
DATE:	JANUARY 2023		

FIGURE 4

1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
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FILE NO.: 413591.0003-004_20211124.mxd

Plot Date: 12/13/2021, 22:46:33 PM by AFOJTIK -- LAYOUT: ANSI B (11"x17")
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Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0
TRC - GIS

Appendix A
Alternate Source Demonstration, Second Semiannual 2021 Groundwater Sampling Event

1540 Eisenhower Pl.
Ann Arbor, MI 48108

T 734.971.7080
TRCcompanies.com

February 24, 2022

Mary R. Carnagie
Materials Management Division
Michigan Department of Environment, Great Lakes, and Energy
27700 Donald Court
Warren, MI 48092-2793

Subject: Alternate Source Demonstration, Second Semiannual 2021 Groundwater Sampling Event
Belle River Power Plant Bottom Ash Basins Coal Combustion Residual Unit
4505 King Road, China Township, Michigan

Dear Ms. Carnagie:

TRC was retained by DTE Electric Company (DTE Electric) to conduct routine groundwater monitoring activities at the Belle River Power Plant (BRPP) CCR Bottom Ash Basins (BABs) coal combustion residual (CCR) unit (the Site), located in St Clair County, Michigan. Routine groundwater monitoring at the BRPP BABs CCR unit is conducted in accordance with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) approved *Hydrogeological Monitoring Plan* for the Site (BRPP BABs and DB HMP) (TRC, August 26, 2020; Revised December 8, 2020) and the United States Environmental Protection Agency (USEPA) final rule for the regulation and management of CCR under the Resource Conservation and Recovery Act (RCRA) (the CCR Rule), as amended (USEPA, April 2015).

The statistical evaluation of the October 2021 detection monitoring indicator parameters indicated potential statistically significant increases (SSIs) for calcium at MW-16-09 (44 milligrams per liter (mg/L) with a prediction limit (PL) of 42 mg/L). Verification resampling for the October 2021 event was conducted on December 6, 2021 by TRC personnel. The verification result for calcium at MW-16-09 (45 mg/L) was above the PL (42 mg/L); therefore, the initial SSI for calcium at MW-16-09 is confirmed (Table 1).

In accordance with §257.94(e)(2) and the BRPP BABs and DB HMP, DTE Electric may demonstrate that a source other than the CCR unit caused the SSI or that the SSI resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. This Alternate Source Demonstration (ASD) has been prepared to address the potential SSI for Calcium at MW-16-09 identified in the October 2021 detection monitoring event and demonstrates that the calcium SSI is not due to a release of CCR leachate into the groundwater.

Background

The BRPP is located in China Township in St. Clair County, Michigan. The site location is shown in Figure 1. The BRPP was constructed in the early 1980s with plant operations beginning in 1984. The property has been used continuously as a coal fired power plant since Detroit Edison Company (now DTE Electric) began power plant operations and is constructed over a natural clay rich soil base. The

BABs have been in use with the BRPP since it began operation and have collected CCR bottom ash that is periodically cleaned out and either sold for beneficial reuse or disposed of at the Range Road Landfill (RRLF).

The BRPP BABs are two adjacent physical sedimentation basins that are slightly raised CCR surface impoundments referred to as the North and South BABs, located north of the BRPP. These are considered one CCR unit. The BABs receive sluiced bottom ash and other process flow water from the power plant. Discharge water from each BAB gravity flows over an outlet weir to a conveyance network of ditches and pipes, then flows into the diversion basin (DB) CCR unit, which is monitored as a separate CCR unit in accordance with the CCR Rule.

The BRPP BABs CCR unit is located approximately one-mile west of the St. Clair River. The BRPP BABs CCR unit is underlain by more than 100 feet of unconsolidated sediments, with the lower confining Bedford Shale generally encountered at 140 to 150 feet below ground surface (bgs). In general, the BRPP BABs CCR unit is initially underlain by at least 90 to as much as 130 feet of laterally extensive low hydraulic conductivity silty clay-rich deposits as demonstrated during the monitoring well network installation and the subsequent alternative liner demonstration investigation (TRC, 2017 and Geosyntec, 2021). The depth to the top of the confined sand-rich uppermost aquifer encountered immediately beneath the silty clay-rich deposits varies up to 50 feet within the monitoring well network and rapidly thins to the south and east of the BABs and pinches out (e.g., no longer present) to the southeast (Figure 2). Consequently, the uppermost aquifer is not laterally contiguous across the entire BRPP BABs CCR unit and is not present in the southeastern corner of the BABs.

Given the horizontally expansive clay with substantial vertical thickness that isolates the uppermost aquifer from the BRPP BABs CCR unit, the heterogeneity of the glacial deposits (with the top of the uppermost aquifer elevation across the BABs, where present, varying up to 50 feet vertically), the no flow boundary where no sand or gravel is present in the southeastern portion of the BABs CCR unit area, and the apparent lack of hydraulic interconnectedness of the uppermost aquifer encountered at the BABs in some areas, it is not appropriate to infer horizontal flow direction or gradients across the BRPP BABs CCR unit.

The detection monitoring well network for the BABs CCR unit currently consists of five monitoring wells that are screened in the uppermost aquifer. As discussed in the Stats Plan, intrawell statistical methods for the BABs CCR unit were selected based on the geology and hydrogeology at the Site (primarily the presence of clay/hydraulic barrier, the variability in the presence of the uppermost aquifer across the site, and presence of no flow boundary on the southeast side of the aquifer), in addition to other supporting lines of evidence that the aquifer is unaffected by the CCR unit (such as the consistency in concentrations of water quality data). Monitoring wells MW-16-01 through MW-16-04 and MW-16-09 are located around the north, east and south perimeter of the BABs and provide data on both background and downgradient groundwater quality that has not been affected by the CCR unit (total of five background/downgradient monitoring wells). The monitoring well locations are shown in Figure 2. The *Groundwater Monitoring System Summary Report – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin Coal Combustion Residual Units* (TRC, October 2017, Revised December 2020a) (Appendix A of the BRPP BABs and DB HMP) details the

groundwater monitoring system and the geology/ hydrogeology.

Alternate Source Demonstration

As discussed above, verification resampling was performed as recommended per the Stats Plan and the Unified Guidance to achieve performance standards as specified by §257.93(g) in the CCR Rule. Per the Stats Plan, if there is an exceedance of a prediction limit for one or more of the parameters, the well(s) of concern will be resampled within 30 days of the completion of the initial statistical analysis. Only constituents that initially exceeded their statistical limit (i.e., have no previously recorded SSIs) were analyzed for verification purposes. As such, verification resampling was conducted on December 6, 2022 by TRC personnel. A groundwater sample was collected for calcium at monitoring well MW-16-09 in accordance with the *CCR Groundwater Monitoring and Quality Assurance Project Plan – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin* (QAPP) (TRC, July 2016; revised August 2017 and December 2020). A summary of the groundwater data collected during the verification resampling event is provided on Table 1.

The verification resampling confirmed the calcium exceedance at MW-16-09 (45 mg/L with a PL of 42 mg/L). The following discussion presents the ASD for the confirmed prediction limit exceedance for calcium at MW-16-09.

Calcium at MW-16-09: The calcium concentrations at MW-16-09, shown graphically as data points greater than the prediction limit in Figure 3A, are the result of natural variability in groundwater quality at the site as seen in natural variability of calcium concentrations seen throughout the BRPP CCR unit (Figure 3B) and not the result of a release from the BRPP BABs CCR unit. Multiple lines of evidence are provided in support of this conclusion and are as follows:

- **Time of travel analysis** – The clay formation immediately beneath the BRPP BABs CCR unit provides a natural geologic barrier to migration of CCR constituents to the underlying aquifer. The vertical extent of the clay layer beneath the CCR unit is shown in Figures 5 through 8 as cross-sections. Figure 4 shows the cross-section locations in plan view. Conservatively calculating a time of travel for liquid from the base of the BRPP BABs CCR unit through a minimum of 90 feet of clay, to the underlying upper aquifer, yields greater than 1,300 years of travel time (Geosyntec, 2021; TRC, October 2017; Revised December 2020a). The BRPP BABs CCR unit began accepting coal ash in approximately 1984, so, based on this analysis, there is no potential for indicator parameters to have migrated to the upper aquifer.
- **Spatial variability in groundwater quality** – The prediction limits for calcium calculated for each of the CCR monitoring wells at the Belle River Power Plant site range from 35 mg/L to 91 mg/L and . This variability in groundwater quality across the site as presented in Figure 3B, shows that the calcium concentrations vary spatially throughout the uppermost aquifer and shows the confirmed calcium SSI at MW-16-09 (based on detections of 44 mg/L and 45 mg/L, respectively), is attributable to spatial variability rather than the CCR unit.
- **Insufficient background sampling timeline to account for long-term trends** – Temporal variability in calcium concentrations observed in the groundwater at BRPP during the background sampling events provides evidence of the heterogeneity of this constituent in groundwater (Figures 3A and 3B). The relatively short duration of the background sampling events limits the ability of the statistical analysis to capture the natural long-term temporal trends in the groundwater quality at

BRPP. In addition, the October (44 mg/L) and December (45 mg/L) 2021 groundwater samples had calcium detected at concentrations that were only slightly above the MW-16-09 PL of 42 mg/L.

- **Lack of similar increase in other indicator parameters** – The lack of SSIs for any other parameters within the same monitoring well and across the other wells within the monitoring well network during this event also suggests a source other than CCR leachate for the observed calcium SSI at this location.

Conclusions and Recommendations

The information provided in this report serves as the ASD for the DTE Electric BRPP BABs CCR unit, was prepared in accordance with 40 CFR 257.94(e)(2) of the CCR Rule and the BRPP BABs and DB HMP demonstrates that the calcium SSI determined based on the second semiannual detection monitoring event performed in 2021 is due to the natural variability of background groundwater quality. Therefore, based on the information provided in this ASD, DTE Electric will continue detection monitoring as per 40 CFR 257.94 and the BRPP BABs and DB HMP at the BRPP BABs CCR unit.

Signatures and Certifications

Engineer Certification Statement

I hereby certify that the alternative source demonstration presented within this document for the BRPP BAB CCR unit has been prepared to meet the requirements of Title 40 CFR §257.94(e)(2) of the Federal CCR Rule and the December 8, 2020 *Hydrogeological Monitoring Plan for the DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin Coal Combustion Residual Units* (HMP). This document is accurate and has been prepared in accordance with good engineering practices, including the consideration of applicable industry standards, and with the requirements of Title 40 CFR §257.94(e)(2) and the HMP.

Name: David B. McKenzie, P.E.	Expiration Date: December 17, 2023	
Company: TRC Engineers Michigan, Inc.	Date: February 24, 2022	Stamp

In addition, the signature below certifies that this letter report was prepared under the direction of a qualified groundwater scientist in accordance with the EGLE-approved HMP and the Stats Plan. A copy of this report will be placed in the facility file.

Sincerely,

TRC

Vincent E Buening, C.P.G
Sr. Project Manager

Sarah B. Holmstrom, P.G
Senior Hydrogeologist

Attachments

Table 1	Comparison of Groundwater Detection Parameter Results to Background Limits – Fourth Quarter 2021
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3A	MW-16-09 Calcium Time Series Plot
Figure 3B	Calcium Time Series Plot
Figure 4	Cross Section Locator Map
Figure 5	Generalized Geologic Cross Section A-A’
Figure 6	Generalized Geologic Cross Section B-B’
Figure 7	Generalized Geologic Cross Section C-C’
Figure 8	Generalized Geologic Cross Section D-D’
Appendix A	References

cc: Christopher P. Scieszka, DTE Electric Company

Table

Table 1
Comparison of Appendix III Parameter Results to Background Limits – Fourth Quarter 2021
Belle River Power Plant BABs – RCRA CCR Monitoring Program
China Township, Michigan

Sample Location:		MW-16-01		MW-16-02		MW-16-03		MW-16-04		MW-16-09		
Sample Date:		10/12/2021	PL[1]	10/12/2021	PL[1]	10/12/2021	PL[1]	10/13/2021	PL[1]	10/12/2021	12/6/2021	PL[1]
Constituent	Unit	Data		Data		Data		Data		Data		
Appendix III												
Boron	ug/L	1,100	1,300	1,200	1,300	1,000	1,200	990	1,200	1,500	--	1,900
Calcium	ug/L	43,000	44,000	56,000	58,000	31,000	35,000	46,000	60,000	**44,000**	**45,000**	42,000
Chloride	mg/L	460	510	360	390	580	800	490	520	970	--	1,100
Fluoride	mg/L	1.7	1.9	1.2	1.3	1.8	1.9	1.7	1.8	1.5	--	1.7
pH, Field	SU	7.6	7.0 - 8.1	7.6	7.3 - 8.0	7.6	7.5 - 8.2	7.6	7.6 - 8.2	7.8	7.7	7.7 - 8.6
Sulfate	mg/L	**25**[2]	14	5.1	15	1.7	5.9	28	36	13	--	37
Total Dissolved Solids	mg/L	**1,000**[3]	970	720	910	1,100	1,100	1,100	1,100	1,700	--	2,000
Part 115 Parameters												
Iron	ug/L	1,100	n<8	1,100	n<8	860	n<8	1,900	n<8	12,000	--	n<8

Notes:

ug/L - micrograms per liter.

mg/L - milligrams per liter.

SU - standard units; pH is a field parameter.

All metals were analyzed as total unless otherwise specified.

Bold font indicates an exceedance of the Prediction Limit (PL).

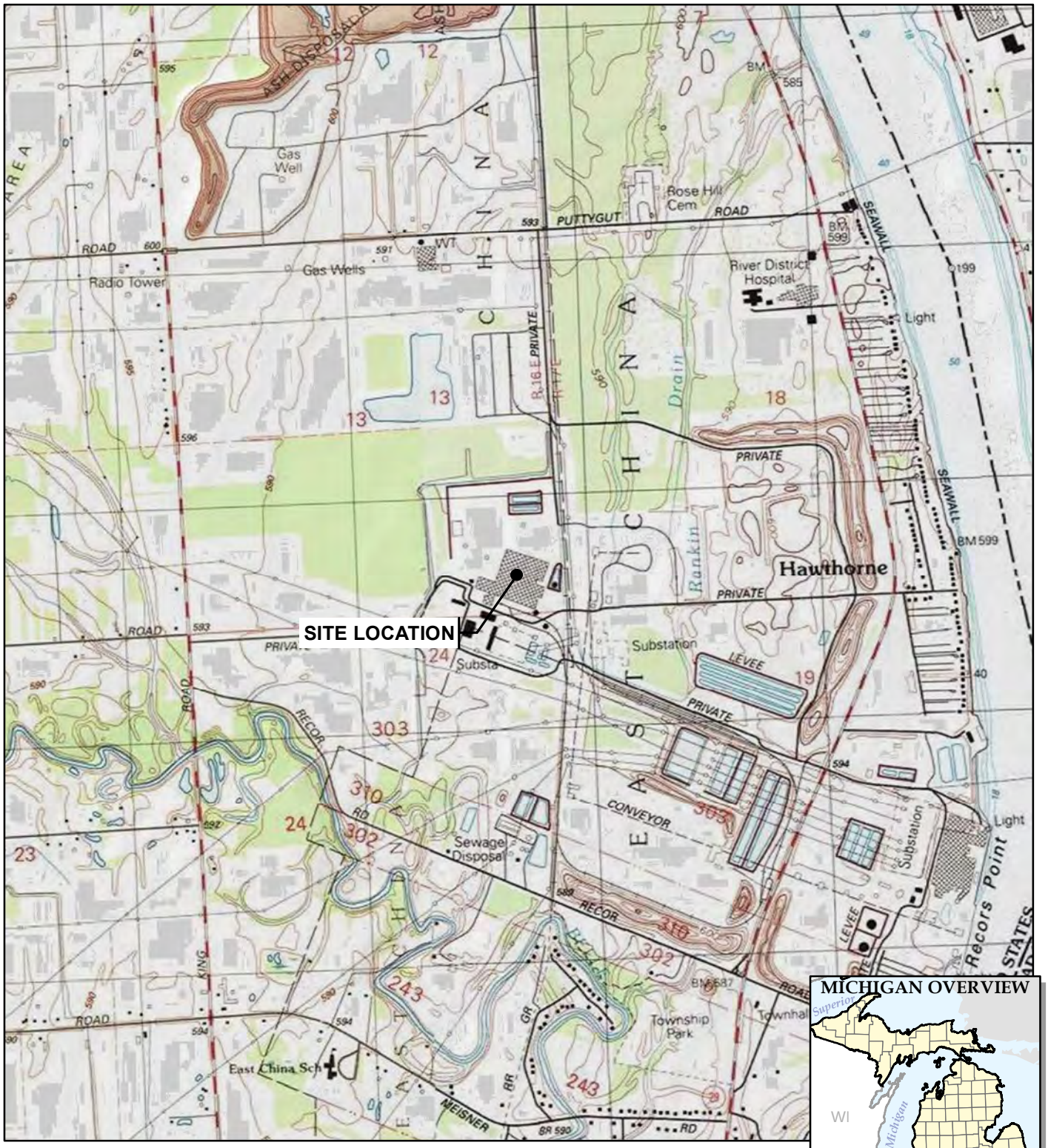
RESULT Shading and bold font indicates a confirmed exceedance of the Prediction Limit (PL).

(1) - Prediction limits updated December 15, 2021.

(2) - Concentration addressed through First 2021 Semiannual alternative source demonstration dated 8/16/2021.

(3) - Concentration addressed through First 2019 Semiannual alternative source demonstration dated 8/8/2019.

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC

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TRC - GIS

PROJECT:

DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT
4505 KING ROAD
CHINA TOWNSHIP, MICHIGAN

TITLE:

SITE LOCATION MAP

DRAWN BY:	A. FOJTIK
CHECKED BY:	J. KRENZ
APPROVED BY:	V. BUENING
DATE:	JANUARY 2022
PROJ. NO.:	413591.0003
FILE:	413591-0003-008.mxd

FIGURE 1

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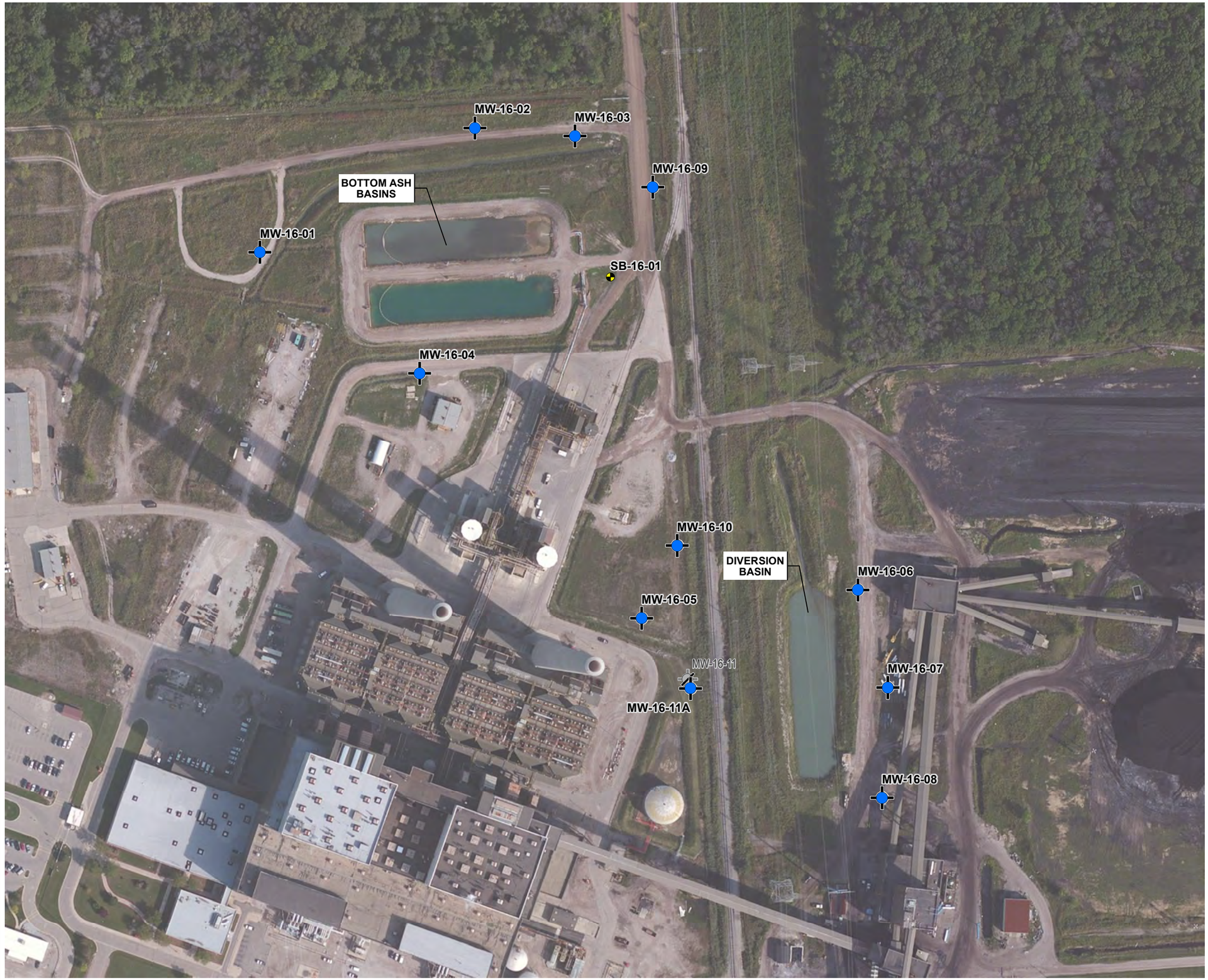

LEGEND

- SOIL BORING
- MONITORING WELL
- DECOMMISSIONED MONITORING WELL

NOTES

1. BASE MAP IMAGERY FROM ESRI WORLD IMAGERY, (08/13/2021).
2. WELL LOCATIONS SURVEYED IN MARCH, APRIL, JUNE 2016, AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.

0 200 400 Feet

1 " = 200 '
1:2,400

PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT BOTTOM ASH BASIN
4505 KING ROAD
CHINA TOWNSHIP, MICHIGAN

TITLE:
SITE PLAN

DRAWN BY:	B. TRACY	PROJ NO.:	413591.0003
CHECKED BY:	A. HORRIE		FIGURE 2
APPROVED BY:	V. BUENING		
DATE:	JANUARY 2022		

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
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FILE NO.: 413591-0003-009.mxd

TRC - GIS
Plot Date: 11/24/2021, 14:20:11 PM by AFOJTIK -- LAYOUT: ANSI B (11"x17")
Path: E:\Projects\DTE\CCR_Sites\2017_265996\413591-0003-009.mxd
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0

Figure 3A
MW-16-09 Calcium Time Series (ug/L)

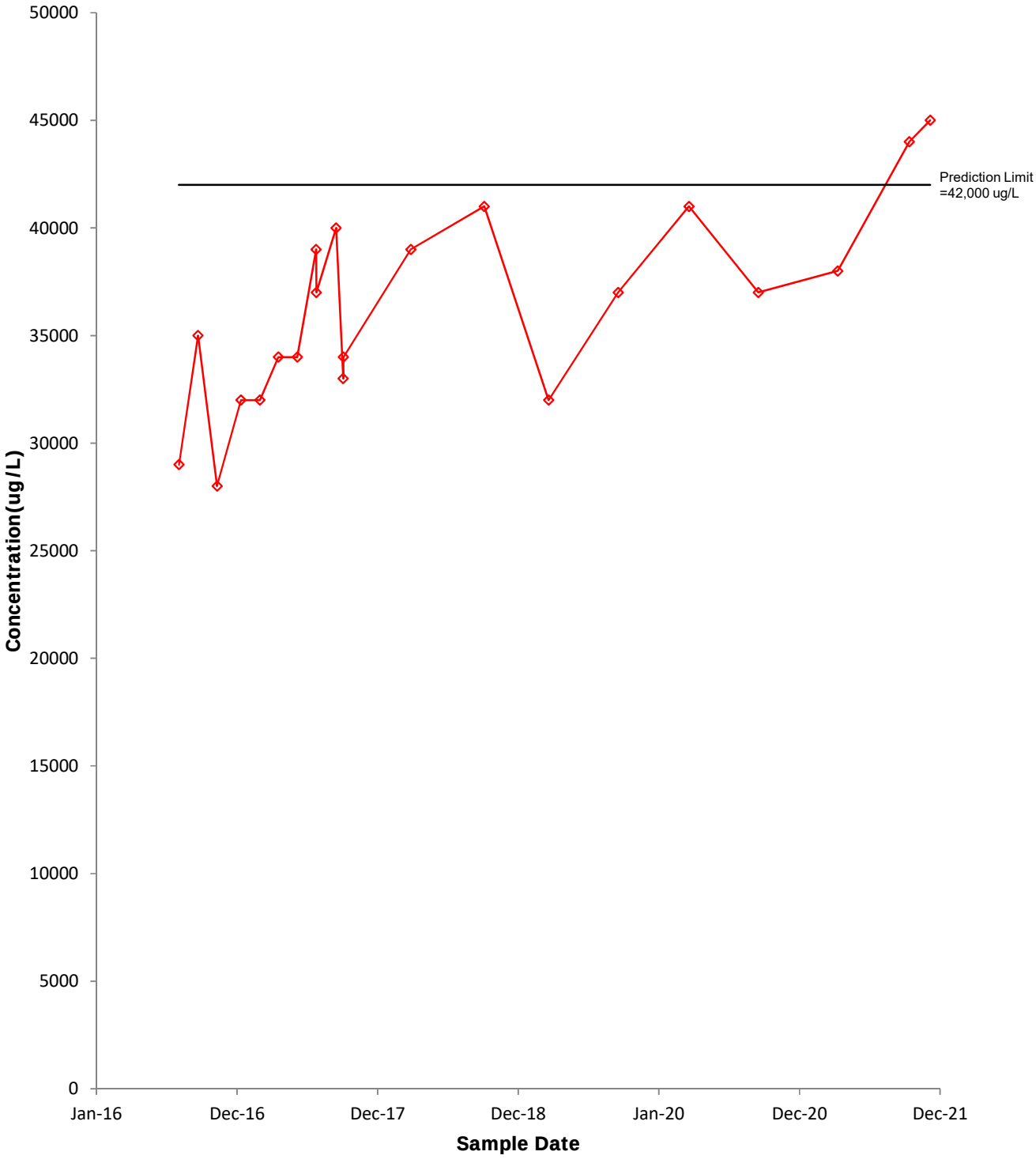
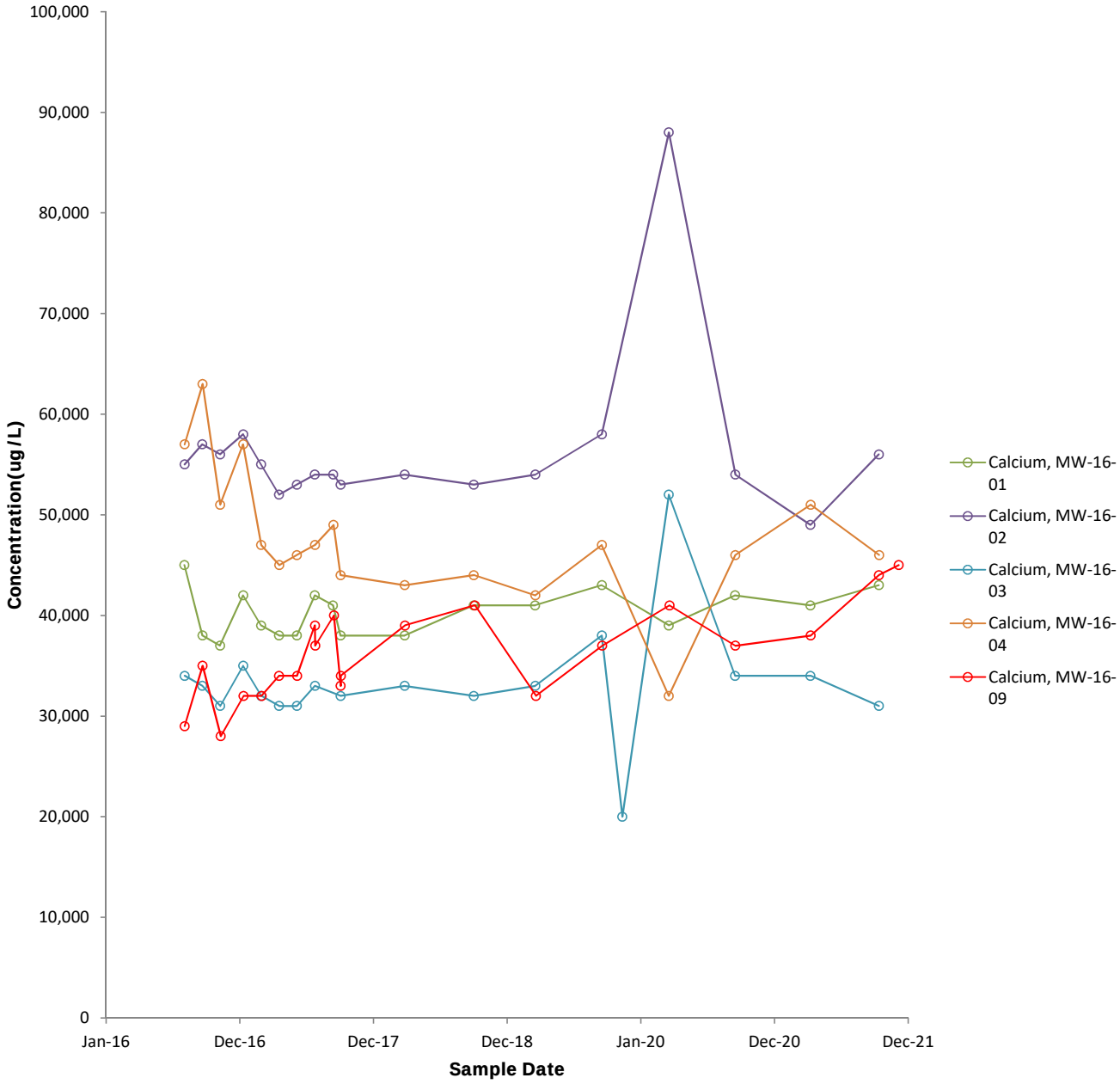


Figure 3B
Calcium Time Series (ug/L)



LEGEND

- SOIL BORING
- MONITORING WELL
- DECOMMISSIONED MONITORING WELL
- CROSS SECTIONS

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO, (3/23/2019).
2. WELL LOCATIONS SURVEYED IN MARCH, APRIL AND JUNE 2016 AND JUNE 2017 BY BMJ ENGINEERS & SURVEYORS, INC.
3. NO SAND, GRAVEL OR OTHER SATURATED ZONE WAS ENCOUNTERED ABOVE THE SHALE BEDROCK IN THIS LOCATION. THEREFORE, AN AQUIFER WAS NOT ENCOUNTERED AND A MONITORING WELL WAS NOT INSTALLED.

0 200 400 Feet

1 " = 200 '

1:2,400

PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT BOTTOM ASH BASIN
4505 KING ROAD
CHINA TOWNSHIP, MICHIGAN

TITLE:
CROSS SECTION LOCATOR MAP

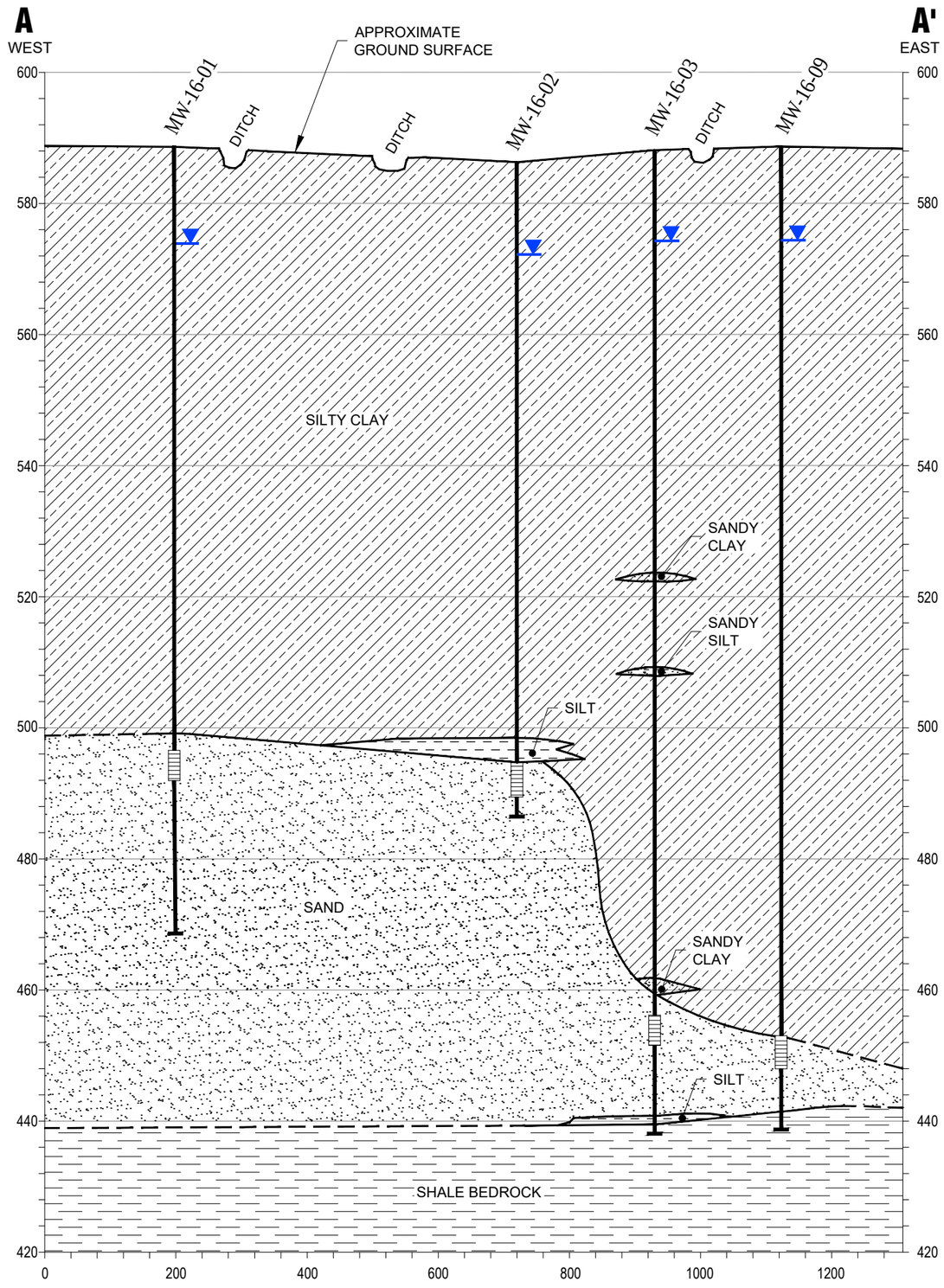
DRAWN BY:	A. ADAIR	PROJ NO.:	370029.0003
CHECKED BY:	K. CRATSENBURG		
APPROVED BY:	V. BUENING		**FIGURE 4**
DATE:	DECEMBER 2020		

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080
www.trccompanies.com

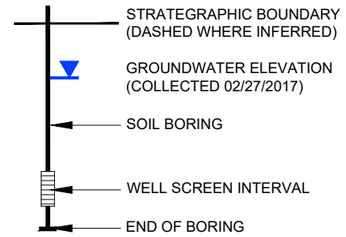
FILE NO.: 370029-0003-003.mxd

TRC - GIS
Coordinate System: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl (Foot)
Map Rotation: 0
Plot Date: 12/1/2020, 20:27:22 PM by AHORRIE - LAYOUT: ANSI B(11"x17")
Path: E:\DTE\CCR_Sites\2017_265996\370029-0003-003.mxd

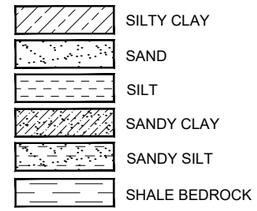
GENERALIZED GEOLOGIC CROSS-SECTION A-A'

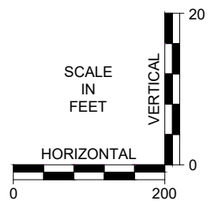


LEGEND



Lithology Key





PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT
CHINA TOWNSHIP, MICHIGAN

TITLE:
GENERALIZED
GEOLOGIC CROSS-SECTION A-A'

DRAWN BY:	D.STEHLE	PROJ NO.:	370029.0003.01.01
CHECKED BY:	S.HOLMSTROM		
APPROVED BY:	V.BUENING		**FIGURE 5**
DATE:	JULY 2020		

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Ann Arbor, MI 48108
Phone: 734.971.7080
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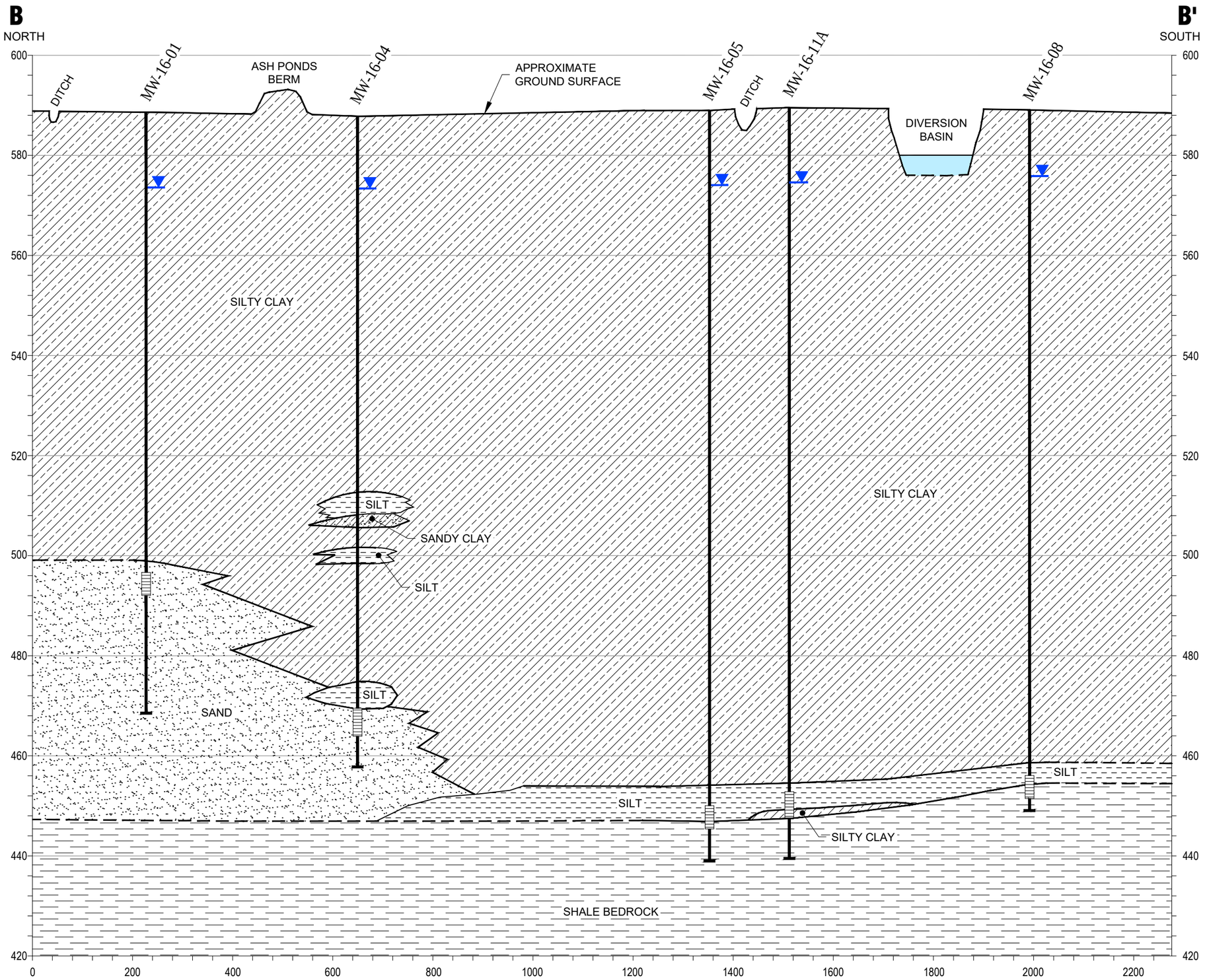
FILE NO.: 370029.0003.01.01.04-05.dwg

GENERALIZED GEOLOGIC CROSS-SECTION B-B'



LEGEND

- STRATEGRAPHIC BOUNDARY (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION (COLLECTED 02/27/2017)
- SOIL BORING
- WELL SCREEN INTERVAL
- END OF BORING

Lithology Key

- SILTY CLAY
- SAND
- SILT
- SANDY CLAY
- SHALE BEDROCK

SCALE IN FEET
VERTICAL: 20 to 0
HORIZONTAL: 0 to 200

PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT
CHINA TOWNSHIP, MICHIGAN

TITLE:
GENERALIZED GEOLOGIC CROSS-SECTION B-B'

DRAWN BY:	D.STEHLE	PROJ NO.:	370029.0003.01.01
CHECKED BY:	S.HOLMSTROM		
APPROVED BY:	V.BUENING		**FIGURE 6**
DATE:	JULY 2020		

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Ann Arbor, MI 48108
Phone: 734.971.7080
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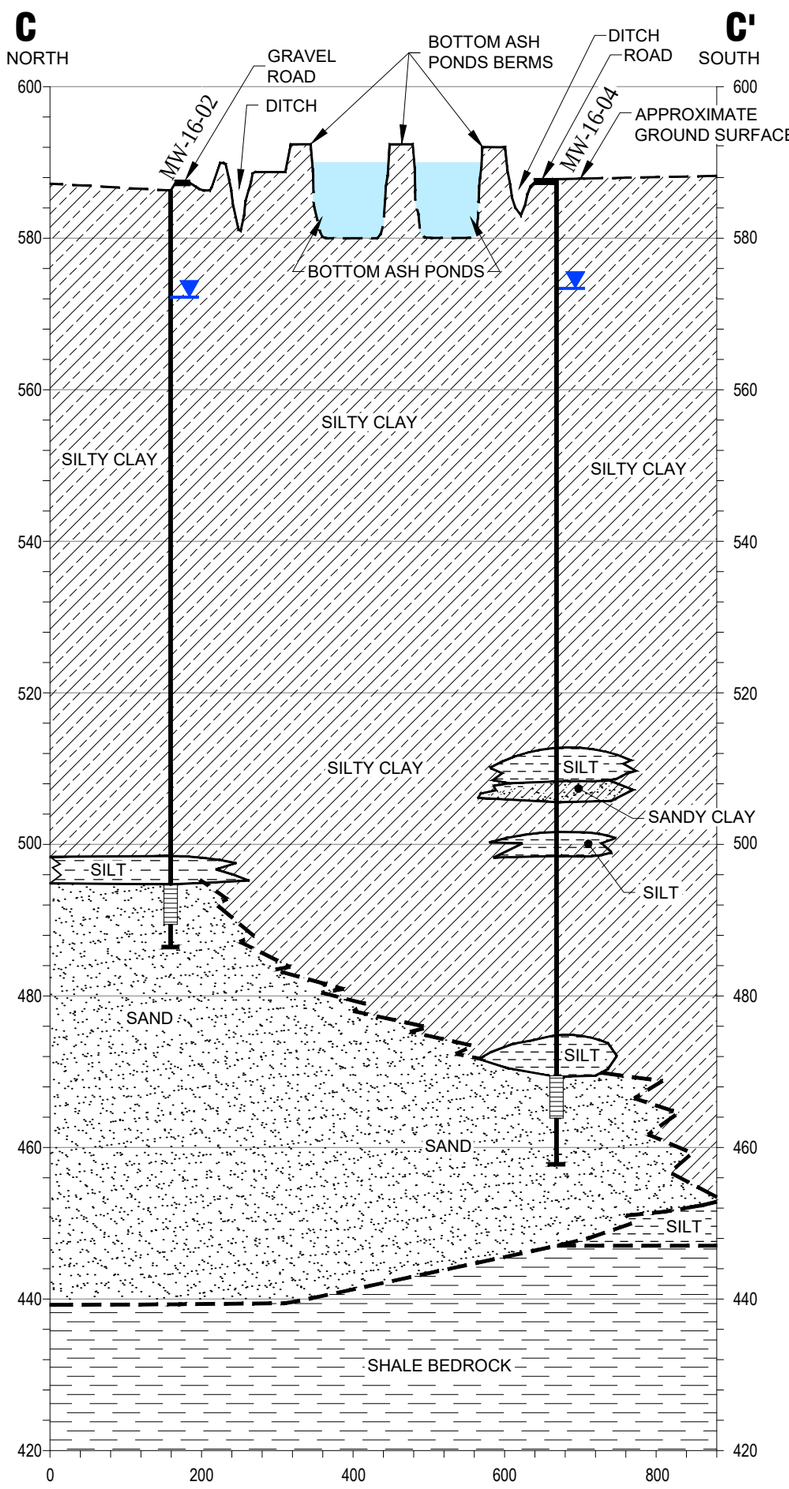
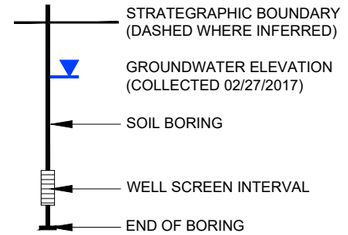
FILE NO.: 370029.0003.01.01.04-05.dwg

11x17 --- ATTACHED XREFS: --- ATTACHED IMAGES: DTE BRPP XSs XXXXXXXXX-021720170922l3_Page_2; XS aa wells; XS cc wells; XS DD wells;
DRAWING NAME: J:_TRC\DTE\Belle River PP\370029\0003\01\01_2020 HMP\ 370029.0003.01.01.04-05.dwg --- PLOT DATE: July 28, 2020 - 6:55AM --- LAYOUT: FIG05 XS BB

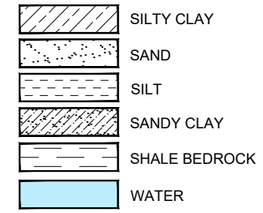
GENERALIZED GEOLOGIC CROSS-SECTION C-C'

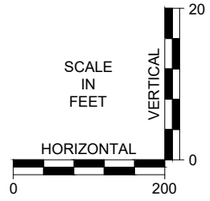


LEGEND



Lithology Key





PROJECT:
DTE ELECTRIC COMPANY
BELLE RIVER POWER PLANT
CHINA TOWNSHIP, MICHIGAN

TITLE:
GENERALIZED GEOLOGIC CROSS-SECTION C-C'

DRAWN BY:	D.STEHLE	PROJ NO.:	370029.0003.01.01
CHECKED BY:	K.CRATSENBURG		
APPROVED BY:	K.CRATSENBURG		**FIGURE 7**
DATE:	NOVEMBER 2020		

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FILE NO.: 370029.0003.01.01.06.dwg

GENERALIZED GEOLOGIC CROSS-SECTION D-D'

D NORTH — **D'** SOUTH

MW-16-03 · MW-16-09 · SB-16-01 · MW-16-06 · MW-16-07 · MW-16-08

DITCH · ROAD · GRAVEL ROAD · DITCH · GRAVEL ROAD · DITCH · GRAVEL ROAD · GRAVEL ROAD · DITCH · GRAVEL ROAD

SILTY CLAY

SANDY CLAY

SANDY SILT

SILT

SAND (UNSATURATED)

SAND

SHALE BEDROCK

600 · 580 · 560 · 540 · 520 · 500 · 480 · 460 · 440 · 420

0 · 200 · 400 · 600 · 800 · 1000 · 1200 · 1400 · 1600 · 1800 · 2000 · 2200

LEGEND

- STRATEGRAPHIC BOUNDARY (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION (COLLECTED 02/27/2017)
- SOIL BORING
- WELL SCREEN INTERVAL
- END OF BORING

Lithology Key

- SILTY CLAY
- SAND
- SILT
- SANDY SILT
- SANDY CLAY
- SHALE BEDROCK

SCALE IN FEET — VERTICAL: 20 · 0 — HORIZONTAL: 0 · 200

PROJECT:	DTE ELECTRIC COMPANY BELLE RIVER POWER PLANT CHINA TOWNSHIP, MICHIGAN
TITLE:	GENERALIZED GEOLOGIC CROSS-SECTION D-D'
DRAWN BY: D.STEHLE	PROJ NO.: 370029.0003.01.01
CHECKED BY: K.CRATSENBURG	
APPROVED BY: V.BUENING	FIGURE 8
DATE: NOVEMBER 2020	

TRC
1540 Eisenhower Place
Ann Arbor, MI 48108
Phone: 734.971.7080
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FILE NO.: 370029.0003.01.01.04-05.dwg

11x17 --- ATTACHED XREF'S: --- ATTACHED IMAGES: dte 1_Page_1; dte 1_Page_2; dte 1_Page_3; dte 1_Page_4; XS aa wells; XS cc wells; XS DD wells;
DRAWING NAME: \\annarbor-fp2\CADD\PJT\00_TRC\DTE\Belle River PP\370029\0003\01\01_2020 HMP\ 370029.0003.01.01.04-05.dwg --- PLOT DATE: December 02, 2020 - 11:42AM --- LAYOUT: FIG07 XS DD

Appendix A
References

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TRC. October 2017; Revised December 2020a. Groundwater Monitoring System Summary Report – DTE Electric Company Belle River Power Plant Bottom Ash Basins and Diversion Basin Coal Combustion Residual Units, 4505 King Road, China Township, Michigan. Prepared for DTE Electric Company.

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USEPA. April 2015. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. 80 Federal Register 74 (April 17, 2015), pp. 21301-21501 (80 FR 21301).

USEPA. July 2018. 40 CFR Part 257. Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One); Final Rule. 83 Federal Register 146 (July 30, 2018), pp. 36435-36456 (83 FR 36435).

USEPA. April 2018. Barnes Johnson (Office of Resource Conservation and Recovery) to James Roewer (c/o Edison Electric Institute) and Douglas Green, Margaret Fawal (Venable LLP). Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements. April 30, 2018. United States Environmental Protection Agency, Washington, D.C. 20460. Office of Solid Waste and Emergency Response, now the Office of Land and Emergency Management.

Appendix B
Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-164920-1
Client Project/Site: CCR DTE Belle River Power

For:
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Attn: Mr. Vincent Buening

Patrick O'Meara

Authorized for release by:
4/24/2022 12:56:54 PM
Patrick O'Meara, Manager of Project Management
(330)966-5725
Patrick.O'Meara@et.eurofinsus.com

Designee for

Kris Brooks, Project Manager II
(330)966-9790
Kris.Brooks@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary 6
Detection Summary 7
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QC Sample Results 25
QC Association Summary 29
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Certification Summary 36
Chain of Custody 37

Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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

Case Narrative

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Job ID: 240-164920-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-164920-1

Comments
No additional comments.

Receipt
The samples were received on 4/13/2022 @ 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2º C and 0.4º C.

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

General Chemistry
Method 9056A: The following samples were diluted due to the nature of the sample matrix: MW-16-08 (240-164920-8) and MW-16-11A (240-164920-11). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CAN
6020	Metals (ICP/MS)	SW846	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-164920-1	MW-16-01	Water	04/07/22 12:50	04/13/22 08:00
240-164920-2	MW-16-02	Water	04/07/22 13:15	04/13/22 08:00
240-164920-3	MW-16-03	Water	04/07/22 14:00	04/13/22 08:00
240-164920-4	MW-16-04	Water	04/07/22 12:05	04/13/22 08:00
240-164920-5	MW-16-05	Water	04/08/22 09:40	04/13/22 08:00
240-164920-6	MW-16-06	Water	04/08/22 13:20	04/13/22 08:00
240-164920-7	MW-16-07	Water	04/08/22 12:40	04/13/22 08:00
240-164920-8	MW-16-08	Water	04/08/22 11:50	04/13/22 08:00
240-164920-9	MW-16-09	Water	04/07/22 13:40	04/13/22 08:00
240-164920-10	MW-16-10	Water	04/08/22 10:50	04/13/22 08:00
240-164920-11	MW-16-11A	Water	04/08/22 08:55	04/13/22 08:00
240-164920-12	DUP 01	Water	04/07/22 00:00	04/13/22 08:00
240-164920-13	DUP-02	Water	04/08/22 00:00	04/13/22 08:00
240-164920-14	EB-01	Water	04/07/22 12:10	04/13/22 08:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-01 — Lab Sample ID: 240-164920-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	49000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	970		100	100	ug/L	1		6020	Total Recoverable
Chloride	440		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.5		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	60		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	860		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-02 — Lab Sample ID: 240-164920-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1200		100	57	ug/L	1		6010B	Total Recoverable
Calcium	56000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	830		100	100	ug/L	1		6020	Total Recoverable
Chloride	350		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.1		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	21		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	710		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-03 — Lab Sample ID: 240-164920-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1200		100	57	ug/L	1		6010B	Total Recoverable
Calcium	35000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	730		100	100	ug/L	1		6020	Total Recoverable
Chloride	580		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Total Dissolved Solids	980		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-04 — Lab Sample ID: 240-164920-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	46000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	2000		100	100	ug/L	1		6020	Total Recoverable
Chloride	460		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.6		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	32		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	950		20	20	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-05 — Lab Sample ID: 240-164920-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1800		100	57	ug/L	1		6010B	Total Recoverable
Calcium	36000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	2300		100	100	ug/L	1		6020	Total Recoverable
Chloride	1500		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.2		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	11		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2500		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-06 — Lab Sample ID: 240-164920-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	45000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	460		100	100	ug/L	1		6020	Total Recoverable
Chloride	1600		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.1		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	8.7		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2700		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-07 — Lab Sample ID: 240-164920-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	45000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	4900		100	100	ug/L	1		6020	Total Recoverable
Chloride	1700		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.1		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	33		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2900		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-08 — Lab Sample ID: 240-164920-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2000		100	57	ug/L	1		6010B	Total Recoverable
Calcium	46000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	5200		100	100	ug/L	1		6020	Total Recoverable
Chloride	1900		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.2		0.10	0.10	mg/L	2		9056A	Total/NA
Total Dissolved Solids	3100		50	50	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-09 — Lab Sample ID: 240-164920-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1500		100	57	ug/L	1		6010B	Total Recoverable
Calcium	90000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	27000		100	100	ug/L	1		6020	Total Recoverable
Chloride	1000		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.4		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	13		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1700		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-10 — Lab Sample ID: 240-164920-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	43000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	2900		100	100	ug/L	1		6020	Total Recoverable
Chloride	1500		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.1		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	140		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2700		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-11A — Lab Sample ID: 240-164920-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	2000		100	57	ug/L	1		6010B	Total Recoverable
Calcium	41000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	2400		100	100	ug/L	1		6020	Total Recoverable
Chloride	1700		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.0		0.10	0.10	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2800		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP 01 — Lab Sample ID: 240-164920-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1500		100	57	ug/L	1		6010B	Total Recoverable
Calcium	83000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	28000		100	100	ug/L	1		6020	Total Recoverable
Chloride	980		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.4		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	14		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1700		40	40	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: DUP-02 — Lab Sample ID: 240-164920-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1800		100	57	ug/L	1		6010B	Total Recoverable
Calcium	35000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	2200		100	100	ug/L	1		6020	Total Recoverable
Chloride	1500		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.2		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	10		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2600		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 240-164920-14

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-01

Date Collected: 04/07/22 12:50
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-1

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	57	ug/L		04/14/22 10:00	04/20/22 13:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	49000		1000	1000	ug/L		04/14/22 10:00	04/19/22 20:57	1
Iron	970		100	100	ug/L		04/14/22 10:00	04/19/22 20:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	440		5.0	5.0	mg/L			04/19/22 17:37	5
Fluoride	1.5		0.050	0.050	mg/L			04/19/22 17:17	1
Sulfate	60		1.0	1.0	mg/L			04/19/22 17:17	1
Total Dissolved Solids	860		20	20	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-02

Date Collected: 04/07/22 13:15
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-2

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1200		100	57	ug/L		04/14/22 10:00	04/20/22 13:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	56000		1000	1000	ug/L		04/14/22 10:00	04/19/22 21:28	1
Iron	830		100	100	ug/L		04/14/22 10:00	04/19/22 21:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	350		5.0	5.0	mg/L			04/19/22 18:17	5
Fluoride	1.1		0.050	0.050	mg/L			04/19/22 17:57	1
Sulfate	21		1.0	1.0	mg/L			04/19/22 17:57	1
Total Dissolved Solids	710		20	20	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-03

Date Collected: 04/07/22 14:00
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-3

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1200		100	57	ug/L		04/14/22 10:00	04/20/22 13:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000		1000	1000	ug/L		04/14/22 10:00	04/19/22 21:32	1
Iron	730		100	100	ug/L		04/14/22 10:00	04/19/22 21:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		10	10	mg/L			04/19/22 19:38	10
Fluoride	1.7		0.050	0.050	mg/L			04/19/22 19:18	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/19/22 19:18	1
Total Dissolved Solids	980		20	20	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-04

Date Collected: 04/07/22 12:05
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-4

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	57	ug/L		04/14/22 10:00	04/20/22 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	46000		1000	1000	ug/L		04/14/22 10:00	04/19/22 21:45	1
Iron	2000		100	100	ug/L		04/14/22 10:00	04/19/22 21:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	460		5.0	5.0	mg/L			04/19/22 20:58	5
Fluoride	1.6		0.050	0.050	mg/L			04/19/22 19:58	1
Sulfate	32		1.0	1.0	mg/L			04/19/22 19:58	1
Total Dissolved Solids	950		20	20	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-05

Date Collected: 04/08/22 09:40
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-5

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1800		100	57	ug/L		04/14/22 10:00	04/20/22 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000		1000	1000	ug/L		04/14/22 10:00	04/19/22 21:50	1
Iron	2300		100	100	ug/L		04/14/22 10:00	04/19/22 21:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500		20	20	mg/L			04/21/22 11:02	20
Fluoride	1.2		0.10	0.10	mg/L			04/21/22 10:40	2
Sulfate	11		2.0	2.0	mg/L			04/21/22 10:40	2
Total Dissolved Solids	2500		50	50	mg/L			04/14/22 09:39	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-06

Date Collected: 04/08/22 13:20
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-6

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2100		100	57	ug/L		04/14/22 10:00	04/20/22 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	45000		1000	1000	ug/L		04/14/22 10:00	04/19/22 21:54	1
Iron	460		100	100	ug/L		04/14/22 10:00	04/19/22 21:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		20	20	mg/L			04/19/22 22:19	20
Fluoride	1.1		0.10	0.10	mg/L			04/19/22 21:59	2
Sulfate	8.7		2.0	2.0	mg/L			04/19/22 21:59	2
Total Dissolved Solids	2700		50	50	mg/L			04/14/22 09:39	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-07

Date Collected: 04/08/22 12:40
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-7

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2100		100	57	ug/L		04/14/22 10:00	04/20/22 14:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	45000		1000	1000	ug/L		04/14/22 10:00	04/19/22 21:58	1
Iron	4900		100	100	ug/L		04/14/22 10:00	04/19/22 21:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700		20	20	mg/L			04/19/22 23:39	20
Fluoride	1.1		0.10	0.10	mg/L			04/19/22 23:19	2
Sulfate	33		2.0	2.0	mg/L			04/19/22 23:19	2
Total Dissolved Solids	2900		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-08

Date Collected: 04/08/22 11:50
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-8

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2000		100	57	ug/L		04/14/22 10:00	04/20/22 14:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	46000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:03	1
Iron	5200		100	100	ug/L		04/14/22 10:00	04/19/22 22:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900		20	20	mg/L			04/20/22 00:19	20
Fluoride	1.2		0.10	0.10	mg/L			04/19/22 23:59	2
Sulfate	2.0	U	2.0	2.0	mg/L			04/19/22 23:59	2
Total Dissolved Solids	3100		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-09

Date Collected: 04/07/22 13:40
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-9

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100	57	ug/L		04/14/22 10:00	04/20/22 14:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	90000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:07	1
Iron	27000		100	100	ug/L		04/14/22 10:00	04/19/22 22:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1000		10	10	mg/L			04/20/22 01:00	10
Fluoride	1.4		0.050	0.050	mg/L			04/20/22 00:40	1
Sulfate	13		1.0	1.0	mg/L			04/20/22 00:40	1
Total Dissolved Solids	1700		40	40	mg/L			04/14/22 09:39	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-10

Lab Sample ID: 240-164920-10

Date Collected: 04/08/22 10:50

Matrix: Water

Date Received: 04/13/22 08:00

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2100		100	57	ug/L		04/14/22 10:00	04/20/22 14:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	43000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:12	1
Iron	2900		100	100	ug/L		04/14/22 10:00	04/19/22 22:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500		20	20	mg/L			04/20/22 01:40	20
Fluoride	1.1		0.10	0.10	mg/L			04/20/22 01:20	2
Sulfate	140		2.0	2.0	mg/L			04/20/22 01:20	2
Total Dissolved Solids	2700		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-11A

Date Collected: 04/08/22 08:55
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-11

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2000		100	57	ug/L		04/14/22 10:00	04/20/22 14:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:16	1
Iron	2400		100	100	ug/L		04/14/22 10:00	04/19/22 22:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700		20	20	mg/L			04/20/22 02:20	20
Fluoride	1.0		0.10	0.10	mg/L			04/20/22 02:00	2
Sulfate	2.0	U	2.0	2.0	mg/L			04/20/22 02:00	2
Total Dissolved Solids	2800		50	50	mg/L			04/14/22 09:39	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: DUP 01

Date Collected: 04/07/22 00:00
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-12

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1500		100	57	ug/L		04/14/22 10:00	04/20/22 14:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	83000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:20	1
Iron	28000		100	100	ug/L		04/14/22 10:00	04/19/22 22:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	980		10	10	mg/L			04/20/22 03:41	10
Fluoride	1.4		0.050	0.050	mg/L			04/20/22 03:21	1
Sulfate	14		1.0	1.0	mg/L			04/20/22 03:21	1
Total Dissolved Solids	1700		40	40	mg/L			04/14/22 09:39	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: DUP-02

Date Collected: 04/08/22 00:00
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-13

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1800		100	57	ug/L		04/14/22 10:00	04/20/22 14:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000		1000	1000	ug/L		04/14/22 10:00	04/19/22 22:25	1
Iron	2200		100	100	ug/L		04/14/22 10:00	04/19/22 22:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1500		20	20	mg/L			04/20/22 05:41	20
Fluoride	1.2		0.10	0.10	mg/L			04/20/22 04:41	2
Sulfate	10		2.0	2.0	mg/L			04/20/22 04:41	2
Total Dissolved Solids	2600		50	50	mg/L			04/14/22 09:39	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: EB-01

Date Collected: 04/07/22 12:10
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-14

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		04/14/22 10:00	04/20/22 14:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		04/14/22 10:00	04/19/22 22:38	1
Iron	100	U	100	100	ug/L		04/14/22 10:00	04/19/22 22:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/20/22 06:02	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/20/22 06:02	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/20/22 06:02	1
Total Dissolved Solids	10	U	10	10	mg/L			04/14/22 09:39	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-522705/1-A
Matrix: Water
Analysis Batch: 523367

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		04/14/22 10:00	04/20/22 13:24	1

Lab Sample ID: LCS 240-522705/2-A
Matrix: Water
Analysis Batch: 523367

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	1050		ug/L		105	80 - 120

Lab Sample ID: 240-164920-1 MS
Matrix: Water
Analysis Batch: 523367

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1100		1000	2260		ug/L		111	75 - 125

Lab Sample ID: 240-164920-1 MSD
Matrix: Water
Analysis Batch: 523367

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	1100		1000	2250		ug/L		111	75 - 125	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-522705/1-A
Matrix: Water
Analysis Batch: 523282

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		04/14/22 10:00	04/19/22 20:48	1
Iron	100	U	100	100	ug/L		04/14/22 10:00	04/19/22 20:48	1

Lab Sample ID: LCS 240-522705/3-A
Matrix: Water
Analysis Batch: 523282

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24700		ug/L		99	80 - 120
Iron	5000	5260		ug/L		105	80 - 120

Lab Sample ID: 240-164920-1 MS
Matrix: Water
Analysis Batch: 523282

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	49000		25000	77500		ug/L		113	75 - 125
Iron	970		5000	6370		ug/L		108	75 - 125

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

Lab Sample ID: 240-164920-1 MSD
Matrix: Water
Analysis Batch: 523282

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 522705

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	49000		25000	76200		ug/L		108	75 - 125	2	20
Iron	970		5000	6310		ug/L		107	75 - 125	1	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-523214/3
Matrix: Water
Analysis Batch: 523214

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/19/22 11:15	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/19/22 11:15	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/19/22 11:15	1

Lab Sample ID: MB 240-523214/53
Matrix: Water
Analysis Batch: 523214

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/20/22 04:01	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/20/22 04:01	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/20/22 04:01	1

Lab Sample ID: LCS 240-523214/4
Matrix: Water
Analysis Batch: 523214

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.3		mg/L		99	90 - 110
Fluoride	2.50	2.53		mg/L		101	90 - 110
Sulfate	50.0	50.9		mg/L		102	90 - 110

Lab Sample ID: LCS 240-523214/54
Matrix: Water
Analysis Batch: 523214

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.3		mg/L		99	90 - 110
Fluoride	2.50	2.54		mg/L		101	90 - 110
Sulfate	50.0	51.2		mg/L		102	90 - 110

Lab Sample ID: 240-164920-4 MS
Matrix: Water
Analysis Batch: 523214

Client Sample ID: MW-16-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.6		2.50	4.16		mg/L		101	80 - 120
Sulfate	32		50.0	84.0		mg/L		104	80 - 120

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

Lab Sample ID: 240-164920-13 MS
Matrix: Water
Analysis Batch: 523214

Client Sample ID: DUP-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluoride	1.2		5.00	6.07		mg/L		98	80 - 120		
Sulfate	10		100	109		mg/L		98	80 - 120		

Lab Sample ID: 240-164920-13 MSD
Matrix: Water
Analysis Batch: 523214

Client Sample ID: DUP-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	1.2		5.00	6.13		mg/L		99	80 - 120	1	15
Sulfate	10		100	109		mg/L		99	80 - 120	1	15

Lab Sample ID: MB 240-523393/3
Matrix: Water
Analysis Batch: 523393

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			04/21/22 03:26	1
Fluoride	0.050	U	0.050	0.050	mg/L			04/21/22 03:26	1
Sulfate	1.0	U	1.0	1.0	mg/L			04/21/22 03:26	1

Lab Sample ID: LCS 240-523393/4
Matrix: Water
Analysis Batch: 523393

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	50.0	50.6		mg/L		101	90 - 110		
Fluoride	2.50	2.66		mg/L		106	90 - 110		
Sulfate	50.0	52.0		mg/L		104	90 - 110		

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

Lab Sample ID: MB 240-522740/1
Matrix: Water
Analysis Batch: 522740

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			04/14/22 09:39	1

Lab Sample ID: LCS 240-522740/2
Matrix: Water
Analysis Batch: 522740

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids	495	495		mg/L		100	80 - 120		

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

Lab Sample ID: 240-164920-14 DU
Matrix: Water
Analysis Batch: 522740

Client Sample ID: EB-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	10	U		10	U	mg/L				NC	20

Metals

Prep Batch: 522705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-1	MW-16-01	Total Recoverable	Water	3005A	
240-164920-2	MW-16-02	Total Recoverable	Water	3005A	
240-164920-3	MW-16-03	Total Recoverable	Water	3005A	
240-164920-4	MW-16-04	Total Recoverable	Water	3005A	
240-164920-5	MW-16-05	Total Recoverable	Water	3005A	
240-164920-6	MW-16-06	Total Recoverable	Water	3005A	
240-164920-7	MW-16-07	Total Recoverable	Water	3005A	
240-164920-8	MW-16-08	Total Recoverable	Water	3005A	
240-164920-9	MW-16-09	Total Recoverable	Water	3005A	
240-164920-10	MW-16-10	Total Recoverable	Water	3005A	
240-164920-11	MW-16-11A	Total Recoverable	Water	3005A	
240-164920-12	DUP 01	Total Recoverable	Water	3005A	
240-164920-13	DUP-02	Total Recoverable	Water	3005A	
240-164920-14	EB-01	Total Recoverable	Water	3005A	
MB 240-522705/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-522705/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-522705/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-164920-1 MS	MW-16-01	Total Recoverable	Water	3005A	
240-164920-1 MS	MW-16-01	Total Recoverable	Water	3005A	
240-164920-1 MSD	MW-16-01	Total Recoverable	Water	3005A	
240-164920-1 MSD	MW-16-01	Total Recoverable	Water	3005A	

Analysis Batch: 523282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-1	MW-16-01	Total Recoverable	Water	6020	522705
240-164920-2	MW-16-02	Total Recoverable	Water	6020	522705
240-164920-3	MW-16-03	Total Recoverable	Water	6020	522705
240-164920-4	MW-16-04	Total Recoverable	Water	6020	522705
240-164920-5	MW-16-05	Total Recoverable	Water	6020	522705
240-164920-6	MW-16-06	Total Recoverable	Water	6020	522705
240-164920-7	MW-16-07	Total Recoverable	Water	6020	522705
240-164920-8	MW-16-08	Total Recoverable	Water	6020	522705
240-164920-9	MW-16-09	Total Recoverable	Water	6020	522705
240-164920-10	MW-16-10	Total Recoverable	Water	6020	522705
240-164920-11	MW-16-11A	Total Recoverable	Water	6020	522705
240-164920-12	DUP 01	Total Recoverable	Water	6020	522705
240-164920-13	DUP-02	Total Recoverable	Water	6020	522705
240-164920-14	EB-01	Total Recoverable	Water	6020	522705
MB 240-522705/1-A	Method Blank	Total Recoverable	Water	6020	522705
LCS 240-522705/3-A	Lab Control Sample	Total Recoverable	Water	6020	522705
240-164920-1 MS	MW-16-01	Total Recoverable	Water	6020	522705
240-164920-1 MSD	MW-16-01	Total Recoverable	Water	6020	522705

Analysis Batch: 523367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-1	MW-16-01	Total Recoverable	Water	6010B	522705
240-164920-2	MW-16-02	Total Recoverable	Water	6010B	522705
240-164920-3	MW-16-03	Total Recoverable	Water	6010B	522705
240-164920-4	MW-16-04	Total Recoverable	Water	6010B	522705
240-164920-5	MW-16-05	Total Recoverable	Water	6010B	522705
240-164920-6	MW-16-06	Total Recoverable	Water	6010B	522705

Metals (Continued)

Analysis Batch: 523367 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-7	MW-16-07	Total Recoverable	Water	6010B	522705
240-164920-8	MW-16-08	Total Recoverable	Water	6010B	522705
240-164920-9	MW-16-09	Total Recoverable	Water	6010B	522705
240-164920-10	MW-16-10	Total Recoverable	Water	6010B	522705
240-164920-11	MW-16-11A	Total Recoverable	Water	6010B	522705
240-164920-12	DUP 01	Total Recoverable	Water	6010B	522705
240-164920-13	DUP-02	Total Recoverable	Water	6010B	522705
240-164920-14	EB-01	Total Recoverable	Water	6010B	522705
MB 240-522705/1-A	Method Blank	Total Recoverable	Water	6010B	522705
LCS 240-522705/2-A	Lab Control Sample	Total Recoverable	Water	6010B	522705
240-164920-1 MS	MW-16-01	Total Recoverable	Water	6010B	522705
240-164920-1 MSD	MW-16-01	Total Recoverable	Water	6010B	522705

General Chemistry

Analysis Batch: 522740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-1	MW-16-01	Total/NA	Water	SM 2540C	
240-164920-2	MW-16-02	Total/NA	Water	SM 2540C	
240-164920-3	MW-16-03	Total/NA	Water	SM 2540C	
240-164920-4	MW-16-04	Total/NA	Water	SM 2540C	
240-164920-5	MW-16-05	Total/NA	Water	SM 2540C	
240-164920-6	MW-16-06	Total/NA	Water	SM 2540C	
240-164920-7	MW-16-07	Total/NA	Water	SM 2540C	
240-164920-8	MW-16-08	Total/NA	Water	SM 2540C	
240-164920-9	MW-16-09	Total/NA	Water	SM 2540C	
240-164920-10	MW-16-10	Total/NA	Water	SM 2540C	
240-164920-11	MW-16-11A	Total/NA	Water	SM 2540C	
240-164920-12	DUP 01	Total/NA	Water	SM 2540C	
240-164920-13	DUP-02	Total/NA	Water	SM 2540C	
240-164920-14	EB-01	Total/NA	Water	SM 2540C	
MB 240-522740/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-522740/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-164920-14 DU	EB-01	Total/NA	Water	SM 2540C	

Analysis Batch: 523214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-1	MW-16-01	Total/NA	Water	9056A	
240-164920-1	MW-16-01	Total/NA	Water	9056A	
240-164920-2	MW-16-02	Total/NA	Water	9056A	
240-164920-2	MW-16-02	Total/NA	Water	9056A	
240-164920-3	MW-16-03	Total/NA	Water	9056A	
240-164920-3	MW-16-03	Total/NA	Water	9056A	
240-164920-4	MW-16-04	Total/NA	Water	9056A	
240-164920-4	MW-16-04	Total/NA	Water	9056A	
240-164920-6	MW-16-06	Total/NA	Water	9056A	
240-164920-6	MW-16-06	Total/NA	Water	9056A	
240-164920-7	MW-16-07	Total/NA	Water	9056A	
240-164920-7	MW-16-07	Total/NA	Water	9056A	
240-164920-8	MW-16-08	Total/NA	Water	9056A	
240-164920-8	MW-16-08	Total/NA	Water	9056A	

General Chemistry (Continued)

Analysis Batch: 523214 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-9	MW-16-09	Total/NA	Water	9056A	
240-164920-9	MW-16-09	Total/NA	Water	9056A	
240-164920-10	MW-16-10	Total/NA	Water	9056A	
240-164920-10	MW-16-10	Total/NA	Water	9056A	
240-164920-11	MW-16-11A	Total/NA	Water	9056A	
240-164920-11	MW-16-11A	Total/NA	Water	9056A	
240-164920-12	DUP 01	Total/NA	Water	9056A	
240-164920-12	DUP 01	Total/NA	Water	9056A	
240-164920-13	DUP-02	Total/NA	Water	9056A	
240-164920-13	DUP-02	Total/NA	Water	9056A	
240-164920-14	EB-01	Total/NA	Water	9056A	
MB 240-523214/3	Method Blank	Total/NA	Water	9056A	
MB 240-523214/53	Method Blank	Total/NA	Water	9056A	
LCS 240-523214/4	Lab Control Sample	Total/NA	Water	9056A	
LCS 240-523214/54	Lab Control Sample	Total/NA	Water	9056A	
240-164920-4 MS	MW-16-04	Total/NA	Water	9056A	
240-164920-4 MSD	MW-16-04	Total/NA	Water	9056A	
240-164920-13 MS	DUP-02	Total/NA	Water	9056A	
240-164920-13 MSD	DUP-02	Total/NA	Water	9056A	

Analysis Batch: 523393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-164920-5	MW-16-05	Total/NA	Water	9056A	
240-164920-5	MW-16-05	Total/NA	Water	9056A	
MB 240-523393/3	Method Blank	Total/NA	Water	9056A	
LCS 240-523393/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-01
Date Collected: 04/07/22 12:50
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 13:32	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 20:57	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/19/22 17:17	KMS	TAL CAN
Total/NA	Analysis	9056A		5	523214	04/19/22 17:37	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-02
Date Collected: 04/07/22 13:15
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 13:53	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 21:28	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/19/22 17:57	KMS	TAL CAN
Total/NA	Analysis	9056A		5	523214	04/19/22 18:17	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-03
Date Collected: 04/07/22 14:00
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 13:57	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 21:32	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/19/22 19:18	KMS	TAL CAN
Total/NA	Analysis	9056A		10	523214	04/19/22 19:38	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-04
Date Collected: 04/07/22 12:05
Date Received: 04/13/22 08:00

Lab Sample ID: 240-164920-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:02	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 21:45	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/19/22 19:58	KMS	TAL CAN

Client Sample ID: MW-16-04

Lab Sample ID: 240-164920-4

Date Collected: 04/07/22 12:05

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	523214	04/19/22 20:58	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-05

Lab Sample ID: 240-164920-5

Date Collected: 04/08/22 09:40

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:14	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 21:50	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523393	04/21/22 10:40	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523393	04/21/22 11:02	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-06

Lab Sample ID: 240-164920-6

Date Collected: 04/08/22 13:20

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:19	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 21:54	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523214	04/19/22 21:59	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523214	04/19/22 22:19	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-07

Lab Sample ID: 240-164920-7

Date Collected: 04/08/22 12:40

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:23	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 21:58	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523214	04/19/22 23:19	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523214	04/19/22 23:39	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-164920-1

Client Sample ID: MW-16-08

Lab Sample ID: 240-164920-8

Date Collected: 04/08/22 11:50

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:27	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:03	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523214	04/19/22 23:59	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523214	04/20/22 00:19	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-09

Lab Sample ID: 240-164920-9

Date Collected: 04/07/22 13:40

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:32	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:07	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/20/22 00:40	KMS	TAL CAN
Total/NA	Analysis	9056A		10	523214	04/20/22 01:00	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-10

Lab Sample ID: 240-164920-10

Date Collected: 04/08/22 10:50

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:36	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:12	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523214	04/20/22 01:20	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523214	04/20/22 01:40	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: MW-16-11A

Lab Sample ID: 240-164920-11

Date Collected: 04/08/22 08:55

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:40	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:16	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523214	04/20/22 02:00	KMS	TAL CAN

Client Sample ID: MW-16-11A

Lab Sample ID: 240-164920-11

Date Collected: 04/08/22 08:55

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		20	523214	04/20/22 02:20	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: DUP 01

Lab Sample ID: 240-164920-12

Date Collected: 04/07/22 00:00

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:44	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:20	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/20/22 03:21	KMS	TAL CAN
Total/NA	Analysis	9056A		10	523214	04/20/22 03:41	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: DUP-02

Lab Sample ID: 240-164920-13

Date Collected: 04/08/22 00:00

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:49	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:25	DSH	TAL CAN
Total/NA	Analysis	9056A		2	523214	04/20/22 04:41	KMS	TAL CAN
Total/NA	Analysis	9056A		20	523214	04/20/22 05:41	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Client Sample ID: EB-01

Lab Sample ID: 240-164920-14

Date Collected: 04/07/22 12:10

Matrix: Water

Date Received: 04/13/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6010B		1	523367	04/20/22 14:53	RKT	TAL CAN
Total Recoverable	Prep	3005A			522705	04/14/22 10:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	523282	04/19/22 22:38	DSH	TAL CAN
Total/NA	Analysis	9056A		1	523214	04/20/22 06:02	KMS	TAL CAN
Total/NA	Analysis	SM 2540C		1	522740	04/14/22 09:39	KMS	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-164920-1
Project/Site: CCR DTE Belle River Power

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22 *
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	11-06-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

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

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

0-6/0-4

Chain of Custody Record

0-4/0-3 MICHIGAN 190

eurofins | Environment Testing America

Client Information	Sampler: Andrew Whaley	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93723-33142.1
Client Contact: Jacob Krenz	Phone: 734 210 9239	E-Mail: Kris.Brooks@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:

Address: 1540 Eisenhower Place	Due Date Requested:
City: Ann Arbor	TAT Requested (days):
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179971 - 2022
Email: JKrenz@trccompanies.com	WO #: 370029.0003 P1 T2
Project Name: CCR DTE Belle River Power	Project #: 24016463
Site: Michigan	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd TDS, 9056A_28D Chloride, Flouride, Sulfate	6010B Bo, 6020 Ca, Fe	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D		
MW-16-01	4/7/22	1250	G	Water	N	N	X	X	2	
MW-16-02	4/7/22	1315	G	Water	—	—	X	X	2	
MW-16-03	4/7/22	1400	G	Water	—	—	X	X	2	
MW-16-04	4/7/22	1205	G	Water	N	N	X	X	2	
MW-16-05	4-8-22	0940	G	Water	—	—	X	X	2	
MW-16-06	4-8-22	1320	G	Water	—	—	X	X	2	
MW-16-07	4-8-22	1240	G	Water	—	—	X	X	2	
MW-16-08	4-8-22	1150	G	Water	—	—	X	X	2	
MW-16-09	4/7/22	1340	G	Water			X	X	2	
MW-16-10	4/8/22	1050	G	Water	—	—	X	X	2	
MW-16-11A	4/8/22	0855	G	Water	—	—	X	X	2	

240-164920 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Andrew Whaley	4-8-22 1545	TRC	TRC storage	4-8-22	
Relinquished by:	Date/Time: 4/12/22 1027	Company TRC	Received by:	Date/Time: 4/12/22 1027	Company
Relinquished by:	Date/Time: 4/12/22 1400	Company ~~ETA~~	Received by: Nancy Berger	Date/Time: 4-13-22 800	Company EETNC

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

4/24/2022

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing America

Client Information	Sampler: Andrew Whaley	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93723-33142.2
Client Contact: Jacob Krenz	Phone:	E-Mail: Kris.Brooks@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days):			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179971 - 2022			
Email: JKrenz@trccompanies.com	WO #: 370029.0003 P1 T2			
Project Name: CCR DTE Belle River Power	Project #: 24016463			
Site: Michigan	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd TDS, 9056A_28D Chloride, Flouride, Sulfate	6010B Bo, 6020 Ca, Fe														Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D															
DUP-01	4/7/22		G	Water			X	X														2	
DUP-02	4-8-22		G	Water			X	X														2	
EB-01	4/7/22	1210	G	Water			X	X														2	
				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		4/12/22/1027	TRC		4/12/22 1027	
2	Relinquished by:	Date/Time: 4/12/22 1400	Company	Received by:	Date/Time: 4-13-22 800	Company ELETRC
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 164920**
Canton Facility

Client TRC Site Name _____ Cooler unpacked by: Tammy Doyle

Cooler Received on 4-13-22 Opened on 4-13-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☒ See Multiple Cooler Form
   IR GUN# IR-14 (CF -0.2 °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN #IR-15 (CF -0.7°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? Yes No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?
10. Were correct bottle(s) used for the test(s) indicated? Yes No
11. Sufficient quantity received to perform indicated analyses? Yes No
12. Are these work share samples and all listed on the COC? Yes No
    If yes, Questions 13-17 have been checked at the originating laboratory.
13. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC157842
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? ● ⇐ Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ Yes No
17. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : ______________

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
TA (circled) Client Box Other	IR-14 **IR-15** (circled)	0.6	0.4	**Wet Ice** (circled) Blue Ice Dry Ice Water None
TA (circled) Client Box Other	IR-14 **IR-15** (circled)	0.4	0.2	**Wet Ice** (circled) Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None
TA Client Box Other	IR-14 IR-15			Wet Ice Blue Ice Dry Ice Water None

☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 - Multiple Coolers

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-16-01	240-164920-B-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-164920-B-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-164920-B-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-04	240-164920-B-4	Plastic 500ml - with Nitric Acid	<2			
MW-16-05	240-164920-B-5	Plastic 500ml - with Nitric Acid	<2			
MW-16-06	240-164920-B-6	Plastic 500ml - with Nitric Acid	<2			
MW-16-07	240-164920-B-7	Plastic 500ml - with Nitric Acid	<2			
MW-16-08	240-164920-B-8	Plastic 500ml - with Nitric Acid	<2			
MW-16-09	240-164920-B-9	Plastic 500ml - with Nitric Acid	<2			
MW-16-10	240-164920-B-10	Plastic 500ml - with Nitric Acid	<2			
MW-16-11A	240-164920-B-11	Plastic 500ml - with Nitric Acid	<2			
DUP 01	240-164920-B-12	Plastic 500ml - with Nitric Acid	<2			
DUP-02	240-164920-B-13	Plastic 500ml - with Nitric Acid	<2			
EB-01	240-164920-B-14	Plastic 500ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-166571-1
Client Project/Site: CCR DTE Belle River Power

For:
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Attn: Mr. Vincent Buening

Authorized for release by:
5/24/2022 8:30:42 PM

Kris Brooks, Project Manager II
(330)966-9790
Kris.Brooks@et.eurofinsus.com

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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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

Case Narrative

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Job ID: 240-166571-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-166571-1

Comments
No additional comments.

Receipt
The samples were received on 5/13/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.1º C.

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

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL CAN
9056A	Anions, Ion Chromatography	SW846	TAL CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-166571-1	MW-16-01	Water	05/09/22 10:02	05/13/22 08:00
240-166571-2	MW-16-02	Water	05/09/22 11:13	05/13/22 08:00
240-166571-3	MW-16-06	Water	05/09/22 12:20	05/13/22 08:00
240-166571-4	MW-16-10	Water	05/09/22 09:32	05/13/22 08:00
240-166571-5	DUP-01	Water	05/09/22 00:00	05/13/22 08:00
240-166571-6	DUP-02	Water	05/09/22 00:00	05/13/22 08:00
240-166571-7	EB-01	Water	05/09/22 09:55	05/13/22 08:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: MW-16-01 — Lab Sample ID: 240-166571-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	40000		1000	1000	ug/L	1		6020	Total Recoverable

Client Sample ID: MW-16-02 — Lab Sample ID: 240-166571-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	14		5.0	5.0	mg/L	5		9056A	Total/NA

Client Sample ID: MW-16-06 — Lab Sample ID: 240-166571-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	36000		1000	1000	ug/L	1		6020	Total Recoverable

Client Sample ID: MW-16-10 — Lab Sample ID: 240-166571-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	31000		1000	1000	ug/L	1		6020	Total Recoverable

Client Sample ID: DUP-01 — Lab Sample ID: 240-166571-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	42000		1000	1000	ug/L	1		6020	Total Recoverable

Client Sample ID: DUP-02 — Lab Sample ID: 240-166571-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	14		5.0	5.0	mg/L	5		9056A	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 240-166571-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Canton

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: MW-16-01
Date Collected: 05/09/22 10:02
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	40000		1000	1000	ug/L		05/16/22 12:00	05/17/22 20:10	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: MW-16-02

Date Collected: 05/09/22 11:13
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	14		5.0	5.0	mg/L			05/19/22 09:25	5

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: MW-16-06

Date Collected: 05/09/22 12:20
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000		1000	1000	ug/L		05/16/22 12:00	05/17/22 20:12	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: MW-16-10
Date Collected: 05/09/22 09:32
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	31000		1000	1000	ug/L		05/16/22 12:00	05/17/22 20:20	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: DUP-01
Date Collected: 05/09/22 00:00
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42000		1000	1000	ug/L		05/16/22 12:00	05/17/22 20:22	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: DUP-02
Date Collected: 05/09/22 00:00
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-6
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	14		5.0	5.0	mg/L			05/19/22 09:47	5

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: EB-01

Date Collected: 05/09/22 09:55
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		05/16/22 12:00	05/17/22 20:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.0	U	1.0	1.0	mg/L			05/19/22 10:08	1

QC Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-526629/1-A
Matrix: Water
Analysis Batch: 526903

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 526629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		05/16/22 12:00	05/17/22 19:23	1

Lab Sample ID: LCS 240-526629/3-A
Matrix: Water
Analysis Batch: 526903

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 526629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	24000		ug/L		96	80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-526998/3
Matrix: Water
Analysis Batch: 526998

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.0	U	1.0	1.0	mg/L			05/19/22 00:22	1

Lab Sample ID: LCS 240-526998/4
Matrix: Water
Analysis Batch: 526998

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	50.0	51.5		mg/L		103	90 - 110

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Metals

Prep Batch: 526629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166571-1	MW-16-01	Total Recoverable	Water	3005A	
240-166571-3	MW-16-06	Total Recoverable	Water	3005A	
240-166571-4	MW-16-10	Total Recoverable	Water	3005A	
240-166571-5	DUP-01	Total Recoverable	Water	3005A	
240-166571-7	EB-01	Total Recoverable	Water	3005A	
MB 240-526629/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-526629/3-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 526903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166571-1	MW-16-01	Total Recoverable	Water	6020	526629
240-166571-3	MW-16-06	Total Recoverable	Water	6020	526629
240-166571-4	MW-16-10	Total Recoverable	Water	6020	526629
240-166571-5	DUP-01	Total Recoverable	Water	6020	526629
240-166571-7	EB-01	Total Recoverable	Water	6020	526629
MB 240-526629/1-A	Method Blank	Total Recoverable	Water	6020	526629
LCS 240-526629/3-A	Lab Control Sample	Total Recoverable	Water	6020	526629

General Chemistry

Analysis Batch: 526998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-166571-2	MW-16-02	Total/NA	Water	9056A	
240-166571-6	DUP-02	Total/NA	Water	9056A	
240-166571-7	EB-01	Total/NA	Water	9056A	
MB 240-526998/3	Method Blank	Total/NA	Water	9056A	
LCS 240-526998/4	Lab Control Sample	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: MW-16-01
Date Collected: 05/09/22 10:02
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			526629	05/16/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	526903	05/17/22 20:10	AJC	TAL CAN

Client Sample ID: MW-16-02
Date Collected: 05/09/22 11:13
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	526998	05/19/22 09:25	JMB	TAL CAN

Client Sample ID: MW-16-06
Date Collected: 05/09/22 12:20
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			526629	05/16/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	526903	05/17/22 20:12	AJC	TAL CAN

Client Sample ID: MW-16-10
Date Collected: 05/09/22 09:32
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			526629	05/16/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	526903	05/17/22 20:20	AJC	TAL CAN

Client Sample ID: DUP-01
Date Collected: 05/09/22 00:00
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			526629	05/16/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	526903	05/17/22 20:22	AJC	TAL CAN

Client Sample ID: DUP-02
Date Collected: 05/09/22 00:00
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		5	526998	05/19/22 09:47	JMB	TAL CAN

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-166571-1

Client Sample ID: EB-01

Date Collected: 05/09/22 09:55
Date Received: 05/13/22 08:00

Lab Sample ID: 240-166571-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			526629	05/16/22 12:00	SHB	TAL CAN
Total Recoverable	Analysis	6020		1	526903	05/17/22 20:24	AJC	TAL CAN
Total/NA	Analysis	9056A		1	526998	05/19/22 10:08	JMB	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-166571-1
Project/Site: CCR DTE Belle River Power

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-22
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-22-16	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

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

Eurofins TestAmerica, Canton
4101 Shuffel Street NW

North Canton, OH 44720-6900
phone 330.497.9396 fax 330.497.0772

MICHIGAN
190

Chain of Custody Record

eurofins | Environment Testing America

G-1/Q1

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	**Project Manager:** Vince Buening		COC No:
TRC Companies	**Email:** VBuening@TRCcompanies.com	**Site Contact:** Henry Schmidt **Date:** 5/10/22	____ of ____ COCs
1540 Eisenhower Place	**Tel/Fax:**	**Lab Contact:** Kris Brooks **Carrier:** Fedex	TALS Project #:
Ann Arbor, MI, 48108	**Analysis Turnaround Time** ☐ CALENDAR DAYS ☐ WORKING DAYS		Sampler:
~~(xxx) xxx-xxxx~~ 734 971 7080 Phone	TAT if different from Below Standard		**For Lab Use Only:**
(xxx) xxx-xxxx FAX	☐ 2 weeks		Walk-in Client:
Project Name: DTE BRPP BAB-DB 2022	☐ 1 week		Lab Sampling:
Site: Belle River Power Plant	☐ 2 days		Job / SDG No.:
P O #	☐ 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Calcium Sulfate	Sample Specific Notes:
MW-16-01	5/9/22	1002	G	GW	1	N	N	X	
MW-16-02	5/9/22	1113	G	GW	1	N	N	~~X~~ X	No Calcium analysis MW-16-02
MW-16-06	5/9/22	1220	G	GW	1	N	N	X	
~~MW-16-09~~	~~5/10/22~~	~~1032~~	~~G~~	~~GW~~	~~1~~	~~N~~	~~N~~	~~X~~	
~~MW-16-09_F~~	~~5/10/22~~	~~1032~~	~~G~~	~~GW~~	~~1~~	~~N~~	~~N~~	~~X~~	~~Hold pending MW-16-09 results~~ ~~GW-16-09_F is field filtered~~
MW-16-10	5/10/22	932	G	GW	1	N	N	X	
DUP-01	5/9/22	—	G	GW	1	N	N	X	
DUP-02	5/9/22	—	G	GW	1	N	N	X	
EB-01	5/9/22	955	G	W	2	N	N	X	

240-166571 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other 1, 4

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:	Corr'd:	Therm ID No.:
Relinquished by: H. Schmidt	Company: TRC	Date/Time: 5/10/22 1600	Received by: TRC Storage	Company: TRC	Date/Time: 5/10/22 1600
Relinquished by: TRC Storage	Company: TRC	Date/Time: 5-12-22/1130	Received by:	Company: TRC	Date/Time: 5-12-22/1130
Relinquished by:	Company: TRC	Date/Time: 5/12/22/1136	Received in Laboratory by:	Company: EETA	Date/Time: 5/12/22 1137 am

EETA 5/12/22 @ 1142am

ETA 5-13-22 0800

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # : 166571**
Canton Facility

Client TRC Site Name _____ Cooler unpacked by: Justin H

Cooler Received on 5-13-22 Opened on 5-13-22

FedEx: 1st Grd Exp UPS FAS (Clipper) Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-13 (CF **0.0** °C) Observed Cooler Temp. 0.1 °C Corrected Cooler Temp. 0.1 °C
   IR GUN #IR-15 (CF **-0.7**°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	(Yes)	No
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)
-Were tamper/custody seals intact and uncompromised?	(Yes)	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	(No)
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	(No)
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?	(Y)	(N)
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No
12. Are these work share samples and all listed on the COC?	Yes	(No)
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	(Yes)	No NA pH Strip Lot# HC157842
14. Were VOAs on the COC?	Yes	(No)
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	(No) NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes	(No)
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	(No)

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____

_____

_____

_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-13-01	240-166571-A-1	Plastic 250ml - with Nitric Acid	<2			
MW-16-02	240-166571-A-2	Plastic 250ml - unpreserved				
MW-16-06	240-166571-A-3	Plastic 250ml - with Nitric Acid	<2			
MW-16-10	240-166571-A-4	Plastic 250ml - with Nitric Acid	<2			
DUP-01	240-166571-A-5	Plastic 250ml - with Nitric Acid	<2			
DUP-02	240-166571-A-6	Plastic 250ml - unpreserved				
EB-01	240-166571-A-7	Plastic 250ml - unpreserved				
EB-01	240-166571-B-7	Plastic 250ml - with Nitric Acid	<2			

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ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-174692-1
Client Project/Site: CCR DTE Belle River Power

For:
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Attn: Mr. Vincent Buening

Patrick O'Meara

Authorized for release by:
10/31/2022 6:43:11 PM
Patrick O'Meara, Manager of Project Management
(330)966-5725
Patrick.O'Meara@et.eurofinsus.com

Designee for

Kris Brooks, Project Manager II
(330)966-9790
Kris.Brooks@et.eurofinsus.com

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Definitions/Glossary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

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

Case Narrative

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Job ID: 240-174692-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-174692-1

Receipt
The samples were received on 10/14/2022 @ 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

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

General Chemistry
Method 2540C_Calcd: Reanalysis of the following sample was performed outside of the analytical holding time due to failure of quality control parameters in the initial analysis. DUP-01 (240-174692-7) and DUP-02 (240-174692-8) Both sets of data are reported.

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

Method Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	EET CAN
6020	Metals (ICP/MS)	SW846	EET CAN
9056A	Anions, Ion Chromatography	SW846	EET CAN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CAN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CAN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-174692-1	MW-16-01	Water	10/12/22 09:36	10/14/22 10:00
240-174692-2	MW-16-02	Water	10/12/22 10:25	10/14/22 10:00
240-174692-3	MW-16-03	Water	10/12/22 11:23	10/14/22 10:00
240-174692-4	MW-16-04	Water	10/12/22 14:10	10/14/22 10:00
240-174692-5	MW-16-06	Water	10/12/22 14:45	10/14/22 10:00
240-174692-6	MW-16-09	Water	10/12/22 12:58	10/14/22 10:00
240-174692-7	DUP-01	Water	10/12/22 00:00	10/14/22 10:00
240-174692-8	DUP-02	Water	10/12/22 00:00	10/14/22 10:00

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-01 — Lab Sample ID: 240-174692-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	950		100	57	ug/L	1		6010B	Total Recoverable
Calcium	43000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	880		100	100	ug/L	1		6020	Total Recoverable
Chloride	450		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.6		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	35		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	880		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-02 — Lab Sample ID: 240-174692-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	57000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	1100		100	100	ug/L	1		6020	Total Recoverable
Chloride	350		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.1		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	17		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	720		10	10	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-03 — Lab Sample ID: 240-174692-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1000		100	57	ug/L	1		6010B	Total Recoverable
Calcium	33000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	710		100	100	ug/L	1		6020	Total Recoverable
Chloride	570		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1100		20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-04 — Lab Sample ID: 240-174692-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1000		100	57	ug/L	1		6010B	Total Recoverable
Calcium	42000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	940		100	100	ug/L	1		6020	Total Recoverable
Chloride	480		5.0	5.0	mg/L	5		9056A	Total/NA
Fluoride	1.6		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	26		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	970		20	20	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-06 — Lab Sample ID: 240-174692-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1900		100	57	ug/L	1		6010B	Total Recoverable
Calcium	37000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	600		100	100	ug/L	1		6020	Total Recoverable
Chloride	1600		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.1		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	2.8		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2700		50	50	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-16-09 — Lab Sample ID: 240-174692-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1400		100	57	ug/L	1		6010B	Total Recoverable
Calcium	57000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	15000		100	100	ug/L	1		6020	Total Recoverable
Chloride	950		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.4		0.050	0.050	mg/L	1		9056A	Total/NA
Sulfate	13		1.0	1.0	mg/L	1		9056A	Total/NA
Total Dissolved Solids	1600		40	40	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 240-174692-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1100		100	57	ug/L	1		6010B	Total Recoverable
Calcium	34000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	730		100	100	ug/L	1		6020	Total Recoverable
Chloride	590		10	10	mg/L	10		9056A	Total/NA
Fluoride	1.7		0.050	0.050	mg/L	1		9056A	Total/NA
Total Dissolved Solids	980	*+	20	20	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	1100	H	20	20	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 240-174692-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	1900		100	57	ug/L	1		6010B	Total Recoverable
Calcium	39000		1000	1000	ug/L	1		6020	Total Recoverable
Iron	560		100	100	ug/L	1		6020	Total Recoverable
Chloride	1600		20	20	mg/L	20		9056A	Total/NA
Fluoride	1.1		0.10	0.10	mg/L	2		9056A	Total/NA
Sulfate	3.0		2.0	2.0	mg/L	2		9056A	Total/NA
Total Dissolved Solids	2500	*+	50	50	mg/L	1		SM 2540C	Total/NA
Total Dissolved Solids - RA	2700	H	50	50	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-01

Lab Sample ID: 240-174692-1

Date Collected: 10/12/22 09:36

Matrix: Water

Date Received: 10/14/22 10:00

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	950		100	57	ug/L		10/17/22 12:00	10/18/22 20:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	43000		1000	1000	ug/L		10/17/22 12:00	10/18/22 17:50	1
Iron	880		100	100	ug/L		10/17/22 12:00	10/18/22 17:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	450		5.0	5.0	mg/L			10/28/22 14:45	5
Fluoride (SW846 9056A)	1.6		0.050	0.050	mg/L			10/28/22 14:25	1
Sulfate (SW846 9056A)	35		1.0	1.0	mg/L			10/28/22 14:25	1
Total Dissolved Solids (SM 2540C)	880		20	20	mg/L			10/18/22 10:11	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-02

Date Collected: 10/12/22 10:25
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-2

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	57	ug/L		10/17/22 12:00	10/18/22 20:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	57000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:02	1
Iron	1100		100	100	ug/L		10/17/22 12:00	10/18/22 18:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	350		5.0	5.0	mg/L			10/28/22 15:25	5
Fluoride (SW846 9056A)	1.1		0.050	0.050	mg/L			10/28/22 15:05	1
Sulfate (SW846 9056A)	17		1.0	1.0	mg/L			10/28/22 15:05	1
Total Dissolved Solids (SM 2540C)	720		10	10	mg/L			10/18/22 10:11	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-03

Date Collected: 10/12/22 11:23
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-3

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1000		100	57	ug/L		10/17/22 12:00	10/18/22 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	33000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:04	1
Iron	710		100	100	ug/L		10/17/22 12:00	10/18/22 18:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	570		10	10	mg/L			10/28/22 16:05	10
Fluoride (SW846 9056A)	1.7		0.050	0.050	mg/L			10/28/22 15:45	1
Sulfate (SW846 9056A)	1.0	U	1.0	1.0	mg/L			10/28/22 15:45	1
Total Dissolved Solids (SM 2540C)	1100		20	20	mg/L			10/18/22 10:11	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-04

Date Collected: 10/12/22 14:10
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-4

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1000		100	57	ug/L		10/17/22 12:00	10/18/22 21:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:12	1
Iron	940		100	100	ug/L		10/17/22 12:00	10/18/22 18:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	480		5.0	5.0	mg/L			10/28/22 16:46	5
Fluoride (SW846 9056A)	1.6		0.050	0.050	mg/L			10/28/22 16:26	1
Sulfate (SW846 9056A)	26		1.0	1.0	mg/L			10/28/22 16:26	1
Total Dissolved Solids (SM 2540C)	970		20	20	mg/L			10/18/22 10:11	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-06

Date Collected: 10/12/22 14:45
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-5

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1900		100	57	ug/L		10/17/22 12:00	10/18/22 21:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	37000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:14	1
Iron	600		100	100	ug/L		10/17/22 12:00	10/18/22 18:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1600		20	20	mg/L			10/28/22 18:06	20
Fluoride (SW846 9056A)	1.1		0.10	0.10	mg/L			10/28/22 17:06	2
Sulfate (SW846 9056A)	2.8		2.0	2.0	mg/L			10/28/22 17:06	2
Total Dissolved Solids (SM 2540C)	2700		50	50	mg/L			10/18/22 10:11	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-09

Date Collected: 10/12/22 12:58
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-6

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1400		100	57	ug/L		10/17/22 12:00	10/18/22 21:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	57000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:17	1
Iron	15000		100	100	ug/L		10/17/22 12:00	10/18/22 18:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	950		10	10	mg/L			10/28/22 18:46	10
Fluoride (SW846 9056A)	1.4		0.050	0.050	mg/L			10/28/22 18:26	1
Sulfate (SW846 9056A)	13		1.0	1.0	mg/L			10/28/22 18:26	1
Total Dissolved Solids (SM 2540C)	1600		40	40	mg/L			10/18/22 10:11	1

Client Sample Results

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: DUP-01

Date Collected: 10/12/22 00:00
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-7

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1100		100	57	ug/L		10/17/22 12:00	10/18/22 21:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	34000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:19	1
Iron	730		100	100	ug/L		10/17/22 12:00	10/18/22 18:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	590		10	10	mg/L			10/27/22 01:11	10
Fluoride (SW846 9056A)	1.7		0.050	0.050	mg/L			10/27/22 00:51	1
Sulfate (SW846 9056A)	1.0	U	1.0	1.0	mg/L			10/27/22 00:51	1
Total Dissolved Solids (SM 2540C)	980	*+	20	20	mg/L			10/19/22 10:11	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1100	H	20	20	mg/L			10/28/22 19:21	1

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: DUP-02

Date Collected: 10/12/22 00:00
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-8

Matrix: Water

Method: SW846 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1900		100	57	ug/L		10/17/22 12:00	10/18/22 21:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	39000		1000	1000	ug/L		10/17/22 12:00	10/18/22 18:22	1
Iron	560		100	100	ug/L		10/17/22 12:00	10/18/22 18:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1600		20	20	mg/L			10/27/22 00:31	20
Fluoride (SW846 9056A)	1.1		0.10	0.10	mg/L			10/27/22 00:11	2
Sulfate (SW846 9056A)	3.0		2.0	2.0	mg/L			10/27/22 00:11	2
Total Dissolved Solids (SM 2540C)	2500	*+	50	50	mg/L			10/19/22 10:11	1

General Chemistry - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	2700	H	50	50	mg/L			10/28/22 19:21	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-547380/1-A
Matrix: Water
Analysis Batch: 547596

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	100	U	100	57	ug/L		10/17/22 12:00	10/18/22 20:13	1

Lab Sample ID: LCS 240-547380/2-A
Matrix: Water
Analysis Batch: 547596

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1000	997		ug/L		100	80 - 120

Lab Sample ID: 240-174692-1 MS
Matrix: Water
Analysis Batch: 547596

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	950		1000	1960		ug/L		101	75 - 125

Lab Sample ID: 240-174692-1 MSD
Matrix: Water
Analysis Batch: 547596

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Boron	950		1000	2060		ug/L		111	75 - 125	5	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 240-547380/1-A
Matrix: Water
Analysis Batch: 547691

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	1000	U	1000	1000	ug/L		10/17/22 12:00	10/18/22 17:45	1
Iron	100	U	100	100	ug/L		10/17/22 12:00	10/18/22 17:45	1

Lab Sample ID: LCS 240-547380/3-A
Matrix: Water
Analysis Batch: 547691

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	25000	25100		ug/L		100	80 - 120
Iron	5000	4990		ug/L		100	80 - 120

Lab Sample ID: 240-174692-1 MS
Matrix: Water
Analysis Batch: 547691

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Calcium	43000		25000	67600		ug/L		98	75 - 125
Iron	880		5000	6060		ug/L		104	75 - 125

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

Lab Sample ID: 240-174692-1 MSD
Matrix: Water
Analysis Batch: 547691

Client Sample ID: MW-16-01
Prep Type: Total Recoverable
Prep Batch: 547380

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	43000		25000	68800		ug/L		102	75 - 125	2	20
Iron	880		5000	6070		ug/L		104	75 - 125	0	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-548696/3
Matrix: Water
Analysis Batch: 548696

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/28/22 06:02	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/28/22 06:02	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/28/22 06:02	1

Lab Sample ID: LCS 240-548696/4
Matrix: Water
Analysis Batch: 548696

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.2		mg/L		100	90 - 110
Fluoride	2.50	2.60		mg/L		104	90 - 110
Sulfate	50.0	51.7		mg/L		103	90 - 110

Lab Sample ID: MB 240-548701/3
Matrix: Water
Analysis Batch: 548701

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			10/26/22 23:30	1
Fluoride	0.050	U	0.050	0.050	mg/L			10/26/22 23:30	1
Sulfate	1.0	U	1.0	1.0	mg/L			10/26/22 23:30	1

Lab Sample ID: LCS 240-548701/4
Matrix: Water
Analysis Batch: 548701

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.6		mg/L		99	90 - 110
Fluoride	2.50	2.56		mg/L		102	90 - 110
Sulfate	50.0	51.4		mg/L		103	90 - 110

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

Lab Sample ID: MB 240-547564/1
Matrix: Water
Analysis Batch: 547564

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/18/22 10:11	1

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

Lab Sample ID: LCS 240-547564/2
Matrix: Water
Analysis Batch: 547564

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	493	483		mg/L		98	80 - 120

Lab Sample ID: 240-174692-6 DU
Matrix: Water
Analysis Batch: 547564

Client Sample ID: MW-16-09
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1600		1630		mg/L		0.2	20

Lab Sample ID: MB 240-547745/1
Matrix: Water
Analysis Batch: 547745

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/19/22 10:11	1

Lab Sample ID: LCS 240-547745/2
Matrix: Water
Analysis Batch: 547745

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	500	796	*+	mg/L		159	80 - 120

Lab Sample ID: MB 240-549374/1
Matrix: Water
Analysis Batch: 549374

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	10	U	10	10	mg/L			10/28/22 19:21	1

Lab Sample ID: LCS 240-549374/2
Matrix: Water
Analysis Batch: 549374

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	388	377		mg/L		97	80 - 120

Lab Sample ID: 240-174692-7 DU
Matrix: Water
Analysis Batch: 549374

Client Sample ID: DUP-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100	H	1080		mg/L		NC	20

Metals

Prep Batch: 547380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-1	MW-16-01	Total Recoverable	Water	3005A	
240-174692-2	MW-16-02	Total Recoverable	Water	3005A	
240-174692-3	MW-16-03	Total Recoverable	Water	3005A	
240-174692-4	MW-16-04	Total Recoverable	Water	3005A	
240-174692-5	MW-16-06	Total Recoverable	Water	3005A	
240-174692-6	MW-16-09	Total Recoverable	Water	3005A	
240-174692-7	DUP-01	Total Recoverable	Water	3005A	
240-174692-8	DUP-02	Total Recoverable	Water	3005A	
MB 240-547380/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 240-547380/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 240-547380/3-A	Lab Control Sample	Total Recoverable	Water	3005A	
240-174692-1 MS	MW-16-01	Total Recoverable	Water	3005A	
240-174692-1 MS	MW-16-01	Total Recoverable	Water	3005A	
240-174692-1 MSD	MW-16-01	Total Recoverable	Water	3005A	
240-174692-1 MSD	MW-16-01	Total Recoverable	Water	3005A	

Analysis Batch: 547596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-1	MW-16-01	Total Recoverable	Water	6010B	547380
240-174692-2	MW-16-02	Total Recoverable	Water	6010B	547380
240-174692-3	MW-16-03	Total Recoverable	Water	6010B	547380
240-174692-4	MW-16-04	Total Recoverable	Water	6010B	547380
240-174692-5	MW-16-06	Total Recoverable	Water	6010B	547380
240-174692-6	MW-16-09	Total Recoverable	Water	6010B	547380
240-174692-7	DUP-01	Total Recoverable	Water	6010B	547380
240-174692-8	DUP-02	Total Recoverable	Water	6010B	547380
MB 240-547380/1-A	Method Blank	Total Recoverable	Water	6010B	547380
LCS 240-547380/2-A	Lab Control Sample	Total Recoverable	Water	6010B	547380
240-174692-1 MS	MW-16-01	Total Recoverable	Water	6010B	547380
240-174692-1 MSD	MW-16-01	Total Recoverable	Water	6010B	547380

Analysis Batch: 547691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-1	MW-16-01	Total Recoverable	Water	6020	547380
240-174692-2	MW-16-02	Total Recoverable	Water	6020	547380
240-174692-3	MW-16-03	Total Recoverable	Water	6020	547380
240-174692-4	MW-16-04	Total Recoverable	Water	6020	547380
240-174692-5	MW-16-06	Total Recoverable	Water	6020	547380
240-174692-6	MW-16-09	Total Recoverable	Water	6020	547380
240-174692-7	DUP-01	Total Recoverable	Water	6020	547380
240-174692-8	DUP-02	Total Recoverable	Water	6020	547380
MB 240-547380/1-A	Method Blank	Total Recoverable	Water	6020	547380
LCS 240-547380/3-A	Lab Control Sample	Total Recoverable	Water	6020	547380
240-174692-1 MS	MW-16-01	Total Recoverable	Water	6020	547380
240-174692-1 MSD	MW-16-01	Total Recoverable	Water	6020	547380

General Chemistry

Analysis Batch: 547564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-1	MW-16-01	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 547564 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-2	MW-16-02	Total/NA	Water	SM 2540C	
240-174692-3	MW-16-03	Total/NA	Water	SM 2540C	
240-174692-4	MW-16-04	Total/NA	Water	SM 2540C	
240-174692-5	MW-16-06	Total/NA	Water	SM 2540C	
240-174692-6	MW-16-09	Total/NA	Water	SM 2540C	
MB 240-547564/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-547564/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-174692-6 DU	MW-16-09	Total/NA	Water	SM 2540C	

Analysis Batch: 547745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-7	DUP-01	Total/NA	Water	SM 2540C	
240-174692-8	DUP-02	Total/NA	Water	SM 2540C	
MB 240-547745/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-547745/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 548696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-1	MW-16-01	Total/NA	Water	9056A	
240-174692-1	MW-16-01	Total/NA	Water	9056A	
240-174692-2	MW-16-02	Total/NA	Water	9056A	
240-174692-2	MW-16-02	Total/NA	Water	9056A	
240-174692-3	MW-16-03	Total/NA	Water	9056A	
240-174692-3	MW-16-03	Total/NA	Water	9056A	
240-174692-4	MW-16-04	Total/NA	Water	9056A	
240-174692-4	MW-16-04	Total/NA	Water	9056A	
240-174692-5	MW-16-06	Total/NA	Water	9056A	
240-174692-5	MW-16-06	Total/NA	Water	9056A	
240-174692-6	MW-16-09	Total/NA	Water	9056A	
240-174692-6	MW-16-09	Total/NA	Water	9056A	
MB 240-548696/3	Method Blank	Total/NA	Water	9056A	
LCS 240-548696/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 548701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-7	DUP-01	Total/NA	Water	9056A	
240-174692-7	DUP-01	Total/NA	Water	9056A	
240-174692-8	DUP-02	Total/NA	Water	9056A	
240-174692-8	DUP-02	Total/NA	Water	9056A	
MB 240-548701/3	Method Blank	Total/NA	Water	9056A	
LCS 240-548701/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 549374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-174692-7 - RA	DUP-01	Total/NA	Water	SM 2540C	
240-174692-8 - RA	DUP-02	Total/NA	Water	SM 2540C	
MB 240-549374/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 240-549374/2	Lab Control Sample	Total/NA	Water	SM 2540C	
240-174692-7 DU	DUP-01	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-01
Date Collected: 10/12/22 09:36
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 20:25
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 17:50
Total/NA	Analysis	9056A		1	548696	JWW	EET CAN	10/28/22 14:25
Total/NA	Analysis	9056A		5	548696	JWW	EET CAN	10/28/22 14:45
Total/NA	Analysis	SM 2540C		1	547564	MS	EET CAN	10/18/22 10:11

Client Sample ID: MW-16-02
Date Collected: 10/12/22 10:25
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 20:55
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:02
Total/NA	Analysis	9056A		1	548696	JWW	EET CAN	10/28/22 15:05
Total/NA	Analysis	9056A		5	548696	JWW	EET CAN	10/28/22 15:25
Total/NA	Analysis	SM 2540C		1	547564	MS	EET CAN	10/18/22 10:11

Client Sample ID: MW-16-03
Date Collected: 10/12/22 11:23
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 20:59
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:04
Total/NA	Analysis	9056A		1	548696	JWW	EET CAN	10/28/22 15:45
Total/NA	Analysis	9056A		10	548696	JWW	EET CAN	10/28/22 16:05
Total/NA	Analysis	SM 2540C		1	547564	MS	EET CAN	10/18/22 10:11

Client Sample ID: MW-16-04
Date Collected: 10/12/22 14:10
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 21:03
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:12
Total/NA	Analysis	9056A		1	548696	JWW	EET CAN	10/28/22 16:26

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: MW-16-04
Date Collected: 10/12/22 14:10
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	548696	JWW	EET CAN	10/28/22 16:46
Total/NA	Analysis	SM 2540C		1	547564	MS	EET CAN	10/18/22 10:11

Client Sample ID: MW-16-06
Date Collected: 10/12/22 14:45
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 21:08
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:14
Total/NA	Analysis	9056A		2	548696	JWW	EET CAN	10/28/22 17:06
Total/NA	Analysis	9056A		20	548696	JWW	EET CAN	10/28/22 18:06
Total/NA	Analysis	SM 2540C		1	547564	MS	EET CAN	10/18/22 10:11

Client Sample ID: MW-16-09
Date Collected: 10/12/22 12:58
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 21:12
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:17
Total/NA	Analysis	9056A		1	548696	JWW	EET CAN	10/28/22 18:26
Total/NA	Analysis	9056A		10	548696	JWW	EET CAN	10/28/22 18:46
Total/NA	Analysis	SM 2540C		1	547564	MS	EET CAN	10/18/22 10:11

Client Sample ID: DUP-01
Date Collected: 10/12/22 00:00
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 21:17
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:19
Total/NA	Analysis	9056A		1	548701	JWW	EET CAN	10/27/22 00:51
Total/NA	Analysis	9056A		10	548701	JWW	EET CAN	10/27/22 01:11
Total/NA	Analysis	SM 2540C		1	547745	MS	EET CAN	10/19/22 10:11
Total/NA	Analysis	SM 2540C	RA	1	549374	JWW	EET CAN	10/28/22 19:21

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power

Job ID: 240-174692-1

Client Sample ID: DUP-02

Date Collected: 10/12/22 00:00
Date Received: 10/14/22 10:00

Lab Sample ID: 240-174692-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6010B		1	547596	KLC	EET CAN	10/18/22 21:21
Total Recoverable	Prep	3005A			547380	SHB	EET CAN	10/17/22 12:00
Total Recoverable	Analysis	6020		1	547691	DSH	EET CAN	10/18/22 18:22
Total/NA	Analysis	9056A		2	548701	JWW	EET CAN	10/27/22 00:11
Total/NA	Analysis	9056A		20	548701	JWW	EET CAN	10/27/22 00:31
Total/NA	Analysis	SM 2540C		1	547745	MS	EET CAN	10/19/22 10:11
Total/NA	Analysis	SM 2540C	RA	1	549374	JWW	EET CAN	10/28/22 19:21

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-174692-1
Project/Site: CCR DTE Belle River Power

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

MICHIGAN 190 0.1/0.8

Chain of Custody Record

MICHIGAN 190

Plastic Bags

eurofins | Environment Testing America

Client Information	Sampler: JAVIER JASSO	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93723-33142.1
Client Contact: Jacob Krenz	Phone: 734 904 3716	E-Mail: Kris.Brooks@Eurofinset.com	State of Origin:	Page: Page 1 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days):			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179971 - 2022			
Email: JKrenz@trccompanies.com	WO #: 370029.0003 P1 T2			
Project Name: CCR DTE Belle River Power	Project #: 24016463			
Site: Michigan	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd TDS, 9056A_28D Chloride, Flouride, Sulfate	6010B Bo, 6020 Ca, Fe	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D		
MW-16-01	10/12/22	0936	G	Water	N	N	X	X	2	
MW-16-02	" "	1025	G	Water	N	N	X	X	2	
MW-16-03	" "	1123	G	Water	N	N	X	X	2	
MW-16-04	" "	1410	G	Water	N	N	X	X	2	
MW-16-05				Water						
MW-16-06	10/12/22	1445	G	Water	N	N	X	X	2	
MW-16-07				Water						
MW-16-08				Water						
MW-16-09	10/6/22	0952	G	Water	N	N	X	X	3	
MW-16-10				Water						
MW-16-11A				Water						

240-174692 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/13/22 1155	TRC		10/13/22 1155	EETA
2		10/13/22 1200	EETA		10/14/22 10:00	EETA
3		Date/Time:	Company	Received by:	Date/Time:	Company

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone (330) 497-9396 Phone (330) 497-0772

MICHIGAN 190

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing America

Client Information	Sampler: JAMES JASA	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-93723-33142.2
Client Contact: Jacob Krenz	Phone: 734 904 3316	E-Mail: Kris.Brooks@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: TRC Environmental Corporation.	PWSID:			Job #:
Address: 1540 Eisenhower Place	Due Date Requested:			
City: Ann Arbor	TAT Requested (days):			
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No			
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179971 - 2022			
Email: JKrenz@trccompanies.com	WO #: 370029.0003 P1 T2			
Project Name: CCR DTE Belle River Power	Project #: 24016463			
Site: Michigan	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd TDS, 9056A_28D Chloride, Flouride, Sulfate	6010B Bo, 6020 Ca, Fe	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D		
DUP-01	10/12/22	—	G	Water	N	N	X	X	2	
DUP-02	10/12/22	—	G	Water	N	N	X	X	2	
EB-01				Water						
				Water						

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/13/22 1155	TRC		10/13/22 1155	EETA
2		10/13/22 1200	EETA		10/14-22 10:00	EETA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 01/16/2019

Eurofins - Canton Sample Receipt Form/Narrative Login # : 174692
Barberton Facility

Client FRC Site Name

Cooler Received on 10-14-22 Opened on 10-14-22

Cooler unpacked by: Chamber

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other

Receipt After-hours: Drop-off Date/Time Storage Location

Eurofins Cooler # FF Foam Box Client Cooler Box Other

Packing material used: Bubble Wrap Foam Plastic Bag None Other

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-13 (CF +0.7 °C) Observed Cooler Temp. 0.1 °C Corrected Cooler Temp. 0.8 °C
   IR GUN #IR-15 (CF 0.0°C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No ck
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC286797
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #	Yes	No
17. Was a LL Hg or Me Hg trip blank present?	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

Did Not Receive EB-01 on Chain.
Received a Field Filtered bottle for MW-16-09 not on COC.

19. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) were further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):

VOA Sample Preservation - Date/Time VOAs Frozen:

WI-NC-099

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Container Temp	Preservative Added (mls)	Lot #
MW-16-01	240-174692-B-1	Plastic 500ml - with Nitric Acid	<2			
MW-16-02	240-174692-B-2	Plastic 500ml - with Nitric Acid	<2			
MW-16-03	240-174692-B-3	Plastic 500ml - with Nitric Acid	<2			
MW-16-04	240-174692-B-4	Plastic 500ml - with Nitric Acid	<2			
MW-16-06	240-174692-B-5	Plastic 500ml - with Nitric Acid	<2			
MW-16-09	240-174692-B-6	Plastic 500ml - with Nitric Acid	<2			
MW-16-09	240-174692-C-6	Plastic 500ml - w/ Nitric - Dis.	<2			
DUP-01	240-174692-B-7	Plastic 500ml - with Nitric Acid	<2			
DUP-02	240-174692-B-8	Plastic 500ml - with Nitric Acid	<2			

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Vincent Buening
TRC Environmental Corporation.
1540 Eisenhower Place
Ann Arbor, Michigan 48108-7080

Generated 12/8/2022 8:11:14 PM

JOB DESCRIPTION

CCR DTE Belle River Power - Verification

JOB NUMBER

240-177377-1

Eurofins Canton
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

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

Authorization

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Authorized for release by
Kris Brooks, Project Manager II
Kris.Brooks@et.eurofinsus.com
(330)966-9790

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Definitions/Glossary

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Qualifiers

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job ID: 240-177377-1

Laboratory: Eurofins Canton

Narrative

Job Narrative
240-177377-1

Receipt
The samples were received on 12/3/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 1.5°C

General Chemistry
Method 9056A_28D: The following sample was diluted due to the nature of the sample matrix: DUP-01 (240-177377-2). Elevated reporting limits (RLs) are provided.

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

Method Summary

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CAN

Protocol References:

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

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: TRC Environmental Corporation.
Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-177377-1	MW-16-02	Water	12/01/22 10:14	12/03/22 08:00
240-177377-2	DUP-01	Water	12/01/22 00:00	12/03/22 08:00
240-177377-3	MW-16-07	Water	12/01/22 09:29	12/03/22 08:00
240-177377-4	MW-16-08	Water	11/30/22 14:37	12/03/22 08:00
240-177377-5	DUP-02	Water	12/01/22 00:00	12/03/22 08:00
240-177377-6	EB-01	Water	11/29/22 15:40	12/03/22 08:00

Detection Summary

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: MW-16-02 Lab Sample ID: 240-177377-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	15		5.0	5.0	mg/L	5		9056A	Total/NA

Client Sample ID: DUP-01 Lab Sample ID: 240-177377-2

No Detections.

Client Sample ID: MW-16-07 Lab Sample ID: 240-177377-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700		20	20	mg/L	20		9056A	Total/NA

Client Sample ID: MW-16-08 Lab Sample ID: 240-177377-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1900		20	20	mg/L	20		9056A	Total/NA

Client Sample ID: DUP-02 Lab Sample ID: 240-177377-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1800		20	20	mg/L	20		9056A	Total/NA

Client Sample ID: EB-01 Lab Sample ID: 240-177377-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: MW-16-02 Lab Sample ID: 240-177377-1

Date Collected: 12/01/22 10:14 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (SW846 9056A)	15		5.0	5.0	mg/L			12/07/22 05:23	5

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: DUP-01 **Lab Sample ID: 240-177377-2**
Date Collected: 12/01/22 00:00 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate (SW846 9056A)	2.0	U	2.0	2.0	mg/L			12/08/22 03:37	2

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: MW-16-07 **Lab Sample ID: 240-177377-3**
Date Collected: 12/01/22 09:29 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1700		20	20	mg/L			12/07/22 06:43	20

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: MW-16-08 **Lab Sample ID: 240-177377-4**
Date Collected: 11/30/22 14:37 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1900		20	20	mg/L			12/07/22 07:03	20

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: DUP-02
Date Collected: 12/01/22 00:00
Date Received: 12/03/22 08:00

Lab Sample ID: 240-177377-5
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1800		20	20	mg/L			12/08/22 05:18	20

Client Sample Results

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: EB-01 **Lab Sample ID: 240-177377-6**
Date Collected: 11/29/22 15:40 **Matrix: Water**
Date Received: 12/03/22 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (SW846 9056A)	1.0	U	1.0	1.0	mg/L			12/07/22 08:24	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 240-554788/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554788

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			12/06/22 20:00	1
Sulfate	1.0	U	1.0	1.0	mg/L			12/06/22 20:00	1

Lab Sample ID: LCS 240-554788/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	49.6		mg/L		99	90 - 110
Sulfate	50.0	50.9		mg/L		102	90 - 110

Lab Sample ID: 240-177377-1 MS — **Client Sample ID: MW-16-02**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554788

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	340		250	561		mg/L		88	80 - 120
Sulfate	15		250	264		mg/L		99	80 - 120

Lab Sample ID: 240-177377-1 MSD — **Client Sample ID: MW-16-02**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554788

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	340		250	559		mg/L		87	80 - 120	0	15
Sulfate	15		250	264		mg/L		100	80 - 120	0	15

Lab Sample ID: MB 240-554983/36 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.0	U	1.0	1.0	mg/L			12/08/22 02:57	1
Sulfate	1.0	U	1.0	1.0	mg/L			12/08/22 02:57	1

Lab Sample ID: LCS 240-554983/37 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50.0	50.0		mg/L		100	90 - 110
Sulfate	50.0	51.3		mg/L		103	90 - 110

Lab Sample ID: 240-177377-2 MS — **Client Sample ID: DUP-01**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554983

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	2.0	U	100	101		mg/L		101	80 - 120

Client: TRC Environmental Corporation.
Project/Site: CCR DTE Belle River Power - Verification

Job ID: 240-177377-1

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

Lab Sample ID: 240-177377-2 MSD
Matrix: Water
Analysis Batch: 554983

Client Sample ID: DUP-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	2.0	U	100	101		mg/L		101	80 - 120	0	15

QC Association Summary

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

General Chemistry

Analysis Batch: 554788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-177377-1	MW-16-02	Total/NA	Water	9056A	
240-177377-3	MW-16-07	Total/NA	Water	9056A	
240-177377-4	MW-16-08	Total/NA	Water	9056A	
240-177377-6	EB-01	Total/NA	Water	9056A	
MB 240-554788/3	Method Blank	Total/NA	Water	9056A	
LCS 240-554788/4	Lab Control Sample	Total/NA	Water	9056A	
240-177377-1 MS	MW-16-02	Total/NA	Water	9056A	
240-177377-1 MSD	MW-16-02	Total/NA	Water	9056A	

Analysis Batch: 554983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-177377-2	DUP-01	Total/NA	Water	9056A	
240-177377-5	DUP-02	Total/NA	Water	9056A	
MB 240-554983/36	Method Blank	Total/NA	Water	9056A	
LCS 240-554983/37	Lab Control Sample	Total/NA	Water	9056A	
240-177377-2 MS	DUP-01	Total/NA	Water	9056A	
240-177377-2 MSD	DUP-01	Total/NA	Water	9056A	

Lab Chronicle

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Client Sample ID: MW-16-02 — Lab Sample ID: 240-177377-1

Date Collected: 12/01/22 10:14 — **Matrix: Water**
Date Received: 12/03/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	554788	JMB	EET CAN	12/07/22 05:23

Client Sample ID: DUP-01 — Lab Sample ID: 240-177377-2

Date Collected: 12/01/22 00:00 — **Matrix: Water**
Date Received: 12/03/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		2	554983	JMB	EET CAN	12/08/22 03:37

Client Sample ID: MW-16-07 — Lab Sample ID: 240-177377-3

Date Collected: 12/01/22 09:29 — **Matrix: Water**
Date Received: 12/03/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	554788	JMB	EET CAN	12/07/22 06:43

Client Sample ID: MW-16-08 — Lab Sample ID: 240-177377-4

Date Collected: 11/30/22 14:37 — **Matrix: Water**
Date Received: 12/03/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	554788	JMB	EET CAN	12/07/22 07:03

Client Sample ID: DUP-02 — Lab Sample ID: 240-177377-5

Date Collected: 12/01/22 00:00 — **Matrix: Water**
Date Received: 12/03/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		20	554983	JMB	EET CAN	12/08/22 05:18

Client Sample ID: EB-01 — Lab Sample ID: 240-177377-6

Date Collected: 11/29/22 15:40 — **Matrix: Water**
Date Received: 12/03/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		1	554788	JMB	EET CAN	12/07/22 08:24

Laboratory References:

EET CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: TRC Environmental Corporation. Job ID: 240-177377-1
Project/Site: CCR DTE Belle River Power - Verification

Laboratory: Eurofins Canton

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

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-23
Connecticut	State	PH-0590	12-31-23
Florida	NELAP	E87225	06-30-23
Georgia	State	4062	02-27-23
Illinois	NELAP	200004	07-31-23
Iowa	State	421	06-01-23
Kentucky (UST)	State	112225	02-27-23
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	06-30-23
New York	NELAP	10975	04-01-23
Ohio	State	8303	02-27-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-23
Texas	NELAP	T104704517-22-17	08-31-23
Virginia	NELAP	460175	09-14-23
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

Chain of Custody Record

MICHIGAN 190

eurofins | Environment Testing

Client Information	Sampler: Andrew Whaley	Lab PM: Brooks, Kris M	Carrier Tracking No(s):	COC No: 240-101768-36941.1
Client Contact: Mr. Vincent Buening	Phone: 734 210 4287	E-Mail: Kris.Brooks@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: TRC Environmental Corporation.	PWSID:			Job #:

Address: 1540 Eisenhower Place	Due Date Requested:	Analysis Requested
City: Ann Arbor	TAT Requested (days): Three (3)	
State, Zip: MI, 48108-7080	Compliance Project: Δ Yes Δ No	
Phone: 313-971-7080(Tel) 313-971-9022(Fax)	PO #: 179971 - 2022	
Email: vbuening@trccompanies.com	WO #: 370029.0003 P1 T2	
Project Name: CCR DTE Belle River Power - Verificaiton	Project #: 24016463	
Site: Michigan	SSOW#:	

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_28D - Sulfate	9056A_28D - (MOD) Chloride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
MW-16-02	12.1.22	1014	G	Water	N	N	X		1	3 Day TAT
DUP-01	12.1.22	—	G	Water	N	N	X		1	
MW-16-07	12.1.22	0929	G	Water	N	N		X	1	
MW-16-08	11.30.22	1437	G	Water	N	N		X	1	
DUP-02	12.1.22	—	G	Water	N	N		X	1	
EB-01	11.29.22	1540	G	Water	N	N		X	1	

240-177377 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time: 12/1/22 1530	Company: TRC	Received by:	Date/Time: 12-3-22 8:00	Company: ETA
Relinquished by:	Date/Time: 12/2/22 1208	Company: TRC	Received by:	Date/Time: 12/2/22 1208	Company:
Relinquished by:	Date/Time: 12/2/22 1211	Company:	Received by:	Date/Time:	Company:

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

Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins - Canton Sample Receipt Form/Narrative **Login # :** _____
Barberton Facility

Client TRC Site Name _____ Cooler unpacked by: Chantel M

Cooler Received on 12-3-22 Opened on 12-3-22

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam ~~Plastic Bag~~ None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water ~~None~~

1. Cooler temperature upon receipt ~~N/A~~ See Multiple Cooler Form
   IR GUN # IR-13 (CF **-0.2** °C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN # IR-16 (CF **-0.1**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C
   IR GUN # IR-17 (CF **-0.3**°C) Observed Cooler Temp._____°C Corrected Cooler Temp._____°C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____	(Yes)	No	
-Were the seals on the outside of the cooler(s) signed & dated?	(Yes)	No	NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	(No)	
-Were tamper/custody seals intact and uncompromised?	(Yes)	No	NA
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No	
4. Did custody papers accompany the sample(s)?	(Yes)	No	
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No	
6. Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes)	No	
7. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No	
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	(Yes)	No	
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)?	(Yes)	No	
10. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No	
11. Sufficient quantity received to perform indicated analyses?	(Yes)	No	
12. Are these work share samples and all listed on the COC?	Yes	(No)	
If yes, Questions 13-17 have been checked at the originating laboratory.			
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No	NA pH Strip Lot# **HC286797**
14. Were VOAs on the COC?	Yes	No	
15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this.	Yes	No	NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No	
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No	

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

_____
_____
_____
_____

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login # : ______________

Eurofins - Canton Sample Receipt Multiple Cooler Form				
Cooler Description (Circle)	IR Gun # (Circle)	Observed Temp °C	Corrected Temp °C	Coolant (Circle)
EC Client Box Other	IR-13 IR-16 IR-17	1.4	1.3	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17	1.6	1.5	Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
EC Client Box Other	IR-13 IR-16 IR-17			Wet Ice Blue Ice Dry Ice Water None
				☐ See Temperature Excursion Form

WI-NC-099 Cooler Receipt Form Page 2 – Multiple Coolers

Appendix C
Data Quality Reviews

Laboratory Data Quality Review
Groundwater Monitoring Event April 2022 (Detection Monitoring)
DTE Electric Company Belle River Power Plant (DTE BRPP)

Groundwater samples were collected by TRC for the April 2022 sampling event for the Bottom Ash Basins (BAB) at the DTE BRPP. Samples were analyzed for anions, total recoverable metals, and total dissolved solids by Eurofins-Environment Testing America (Eurofins), located in North Canton, Ohio. The laboratory analytical results are reported in laboratory report 240-164920-1.

During the April 2022 sampling event, a groundwater sample was collected from each of the following wells:

- MW-16-01
- MW-16-02
- MW-16-03
- MW-16-04
- MW-16-09

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Recoverable Boron	SW846 3005A/6010B
Total Recoverable Calcium and Iron	SW846 3005A/6020
Total Dissolved Solids	SM 2540C

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks and equipment blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;

- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), where applicable. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;
- Data for laboratory duplicates, where applicable. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation are noted below.

- Appendix III constituents and iron will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- There was one equipment blank submitted with this dataset (EB-01). No target analytes were detected in the equipment blank.
- Target analytes were not detected in the method blanks.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS and MSD analyses were performed on sample MW-16-01 for total recoverable metals and MS analysis was performed on sample MW-16-04 for fluoride and sulfate; the percent recoveries and relative percent differences (RPDs) were within criteria.
- Laboratory duplicate analyses were performed on sample EB-01 for TDS; RPD was within the QC limits.
- The field duplicate pair samples were MW-16-019 and DUP-01 for anions, total recoverable metals, and TDS; RPDs between the parent and duplicate sample were within the QC limits.

Laboratory Data Quality Review
Groundwater Monitoring Event May 2022 (Detection Monitoring)
DTE Electric Company Belle River Power Plant (DTE BRPP) Bottom Ash Basins Verification

Groundwater samples were collected by TRC for the May 2022 sampling event for the Bottom Ash Basins at the DTE BRPP. Samples were analyzed for total recoverable calcium and sulfate by Eurofins Environment Testing America (Eurofins) located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-166571-1.

During the May 2022 sampling event, a groundwater sample was collected from each of the following wells:

- MW-16-01
- MW-16-02

Each sample was analyzed for one of the following constituents:

Analyte Group	Method
Sulfate	SW846 9056A
Total Recoverable Calcium	SW846 3005A/6020

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks and equipment blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), where applicable. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;
- Data for laboratory duplicates, where applicable. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;

- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation are noted below.

- Appendix III constituents will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- There was one equipment blank submitted with this dataset (EB-01). No target analytes were detected in the equipment blank.
- Target analytes were not detected in the method blanks.
- LCS recoveries for all target analytes were within laboratory control limits.
- MS/MSD analyses were not performed on a sample from this sample set.
- The field duplicate pair samples were DUP-01 and MW-16-01 for total recoverable calcium and samples DUP-02 and MW-16-02 for sulfate; RPDs between the parent and duplicate sample were within the QC limits.

Laboratory Data Quality Review
Groundwater Monitoring Event October 2022 (Detection Monitoring)
DTE Electric Company Belle River Power Plant (DTE BRPP)

Groundwater samples were collected by TRC for the October 2022 sampling event for the Bottom Ash Basins at the DTE BRPP. Samples were analyzed for anions, total recoverable metals, and total dissolved solids by Eurofins-Environment Testing America (Eurofins), located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-174692-1.

During the October 2022 sampling event, a groundwater sample was collected from each of the following wells:

Bottom Ash Basins:

- MW-16-01
- MW-16-02
- MW-16-03
- MW-16-04
- MW-16-09

Each sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Chloride, Fluoride, Sulfate)	SW846 9056A
Total Recoverable Boron	SW846 3005A/6010B
Total Recoverable Calcium and Iron	SW846 3005A/6020
Total Dissolved Solids	SM 2540C

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

Data Quality Review Procedure

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA, 2020). The following items were included in the evaluation of the data:

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks, equipment blanks, and field blanks. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Field and equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs) and laboratory control sample duplicates (LCSDs), when performed. The LCSs and/or LCSDs are used to assess the accuracy of the analytical method using a clean matrix;

- Percent recoveries for matrix spike (MS) and matrix spike duplicates (MSD), when performed on project samples. Percent recoveries are calculated for each analyte spiked and used to assess bias due to sample matrix effects;
- Data for laboratory duplicates, when performed on project samples. The laboratory duplicates are replicate analyses of one sample and are used to assess the precision of the analytical method;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and
- Overall usability of the data.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation are noted below.

- Appendix III constituents will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- An equipment blank was not collected with this data set.
- Target analytes were not detected in the method blanks.
- Sample DUP-01 was analyzed 9 days outside of the holding time for TDS due to issues with the LCS. The result from the original analysis was reported and should be used for project objectives; therefore, there was no adverse effect on the usability of the data due to the holding time exceedance.
- LCS recoveries for all target analytes were within laboratory control limits with the following exception. The recovery of TDS in LCS 240-547745/2 (159%) associated with the original TDS analysis of sample DUP-01 exceeded QC limits (80-120%). The laboratory re-analyzed this sample outside of the holding time due to this issue; the LCS recovery associated with the reanalysis was within QC limits. The result from the original TDS analysis should be used for project objectives. Therefore, the positive result for TDS from the original analysis of sample DUP-01 should be considered estimated with a potential high bias as summarized in the attached table, Attachment A.
- MS/MSD analyses were performed on sample MW-16-01 for boron, calcium, and iron; the percent recoveries (%Rs) and relative percent differences (RPDs) were within acceptance criteria.
- Laboratory duplicate analyses were performed for TDS on samples MW-16-09 and DUP-01. The RPD met the acceptance criteria.

- DUP-1 corresponds with MW-16-03; RPDs between the parent and duplicate sample were within the QC limits.

Attachment A
Summary of Data Non-Conformances for Groundwater Monitoring Event Analytical Data
Belle River Power Plant CCR Bottom Ash Basins
China Township, Michigan

Samples	Collection Date	Analyte	Non-Conformance/Issue
DUP-01	10/12/2022	TDS	LCS recoveries exceeded QC limits, positive result should be considered estiamted with a potential high bias.

Laboratory Data Quality Review
Groundwater Monitoring Event December 2022 (Detection Monitoring)
DTE Electric Company Belle River Power Plant (DTE BRPP) Bottom Ash Basins Verification

Groundwater samples were collected by TRC for the December 2022 sampling event for the Bottom Ash Basins at the DTE BRPP. Samples were analyzed for sulfate by Eurofins-Environment Testing America (Eurofins), located in Barberton, Ohio. The laboratory analytical results are reported in laboratory report 240-177377-1.

During the December 2022 sampling event, a groundwater sample was collected from the following well:

Bottom Ash Basins:

- MW-16-02

The sample was analyzed for the following constituents:

Analyte Group	Method
Anions (Sulfate)	SW846 9056A

TRC reviewed the laboratory data to assess data usability. The following sections summarize the data review procedure and the results of the review.

The analytical data were reviewed using the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2017). The following items were included in the evaluation of the data:

- Sample receipt, as noted in the cover page or case narrative;
- Technical holding times for analyses;
- Reporting limits (RLs) compared to project-required RLs;
- Data for method blanks and equipment blanks, where applicable. Method blanks are used to assess potential contamination arising from laboratory sample preparation and/or analytical procedures. Equipment blanks are used to assess potential contamination arising from field procedures;
- Data for laboratory control samples (LCSs). The LCSs are used to assess the accuracy of the analytical method using a clean matrix;
- Data for matrix spike and matrix spike duplicate samples (MS/MSDs), where applicable. The MS/MSDs are used to assess the accuracy and precision of the analytical method using a sample from the dataset;
- Data for laboratory duplicates, where applicable. The laboratory duplicates are used to assess the precision of the analytical method using a sample from the dataset;
- Data for blind field duplicates. Field duplicate samples are used to assess variability introduced by the sampling and analytical processes; and

- Overall usability of the data.

This data usability report addresses the following items:

- Usability of the data if quality control (QC) results suggest potential problems with all or some of the data;
- Actions regarding specific QC criteria exceedances.

Review Summary

The data quality objectives and laboratory completeness goals for the project were met, and the data are usable for their intended purpose. A summary of the data quality review, including non-conformances and issues identified in this evaluation are noted below.

- Appendix III constituents will be utilized for the purposes of a detection monitoring program.
- Data are usable for the purposes of the detection monitoring program.

QA/QC Sample Summary

- An equipment blank was not submitted with this dataset for sulfate analysis.
- MS/MSD analyses were performed on sample MW-16-02 and DUP-01 for sulfate; the percent recoveries (%Rs) and relative percent differences (RPDs) were within the acceptance limits.
- DUP-01 corresponds with MW-16-02. The absolute difference between the sulfate results was greater than the QL; the positive and nondetect results for sulfate in samples MW-16-02 with DUP-01 should be considered estimated as summarized in the attached table, Attachment A.
- The RL for sulfate (2 mg/L) in sample DUP-01 was above the QAPP-specified RL (1 mg/L) due to a 2-fold dilution performed.

Attachment A
Summary of Data Non-Conformances for Groundwater Monitoring Event Analytical Data
Belle River Power Plant CCR Bottom Ash Basins
China Township, Michigan

Samples	Collection Date	Analyte	Non-Conformance/Issue
MW-16-02	12/1/2022	Sulfate	Field duplicate variability (AbsD > RL) resulting in estimated values
DUP-01	12/1/2022		