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SIXTH FIVE-YEAR REVIEW REPORT FOR OCONOMOWOC ELECTROPLATING CO., INC. SUPERFUND SITE DODGE COUNTY, WISCONSIN

Prepared by

U.S. Environmental Protection Agency
Region 5
CHICAGO, ILLINOIS

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X Douglas Ballotti

Douglas Ballotti, Director
Superfund & Emergency Management Division
Signed by: DOUGLAS BALLOTTI

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LIST OF ABBREVIATIONS & ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
AROD	Record of Decision Amendment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminants of Concern
CVOC	Chlorinated Volatile Organic Compounds
cis-DCE	cis-1,2-Dichloroethene
DO	Dissolved Oxygen
EPA	United States Environmental Protection Agency
ES	Enforcement Standard
ESD	Explanation of Significant Difference
FYR	Five-Year Review
IC	Institutional Controls
ICIAP	Institutional Control Implementation and Assurance Plan
ISSM	In-Situ Soil Mixing
LTRA	Long-Term Response Action
MCL	Maximum Contaminant Level
MNA	Monitored Natural Attenuation
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OECI	Oconomowoc Electroplating Company, Inc.
ORP	Oxidation Reduction Potential
OUs	Operable Units
PAL	Preventive Action Level
PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances
PRP	Potentially Responsible Party
RAO	Remedial Action Objectives
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RPM	Remedial Project Manager
Site	Oconomowoc Electroplating Co., Inc. Superfund Site
TBC	To be considered
TCE	Trichloroethylene
µg/m3	microgram per cubic meter
UU/UE	Unlimited Use and Unrestricted Exposure
VC	Vinyl Chloride
VI	Vapor Intrusion
VOC	Volatile Organic Compounds
WDNR	Wisconsin Department of Natural Resources

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this FYR pursuant to Section 121 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), consistent with the National Contingency Plan (NCP), 40 C.F.R. § 300.430(f)(4)(ii)), and considering EPA policy.

This is the sixth FYR for the Oconomowoc Electroplating Co., Inc. (OECI) Superfund Site (Site). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of five Operable Units (OUs) that will be addressed in this FYR. OU1 addresses surface water, metal hydroxide sludge, and contaminated soils associated with the two onsite Resource Conservation and Recovery Act (RCRA) Subtitle C lagoons. OU2 addresses contaminated soil around the OECI facility not associated with the RCRA lagoons. OU3 addresses contaminated groundwater associated with the OECI site. OU4 addresses the most highly contaminated sediments in Davy Creek and the wetlands area. OU5, added in 1991 with an Explanation of Significant Difference (ESD), addresses demolition of the abandoned facility and disposal of associated debris.

The OECI Superfund Site FYR was led by Bill Murray, EPA Remedial Project Manager (RPM). Participants included Gwen Saliares, Hydrogeologist with the Wisconsin Department of Natural Resources (WDNR). WDNR was notified of the initiation of the FYR, which began on November 8, 2021.

Site Background

The 10-acre state-lead OECI site is located in the Town of Ashippun, Wisconsin (Town), and comprises 4 acres formerly occupied by the OECI facility, which is bounded by Elm, Oak, and Eva Streets, and the Town's municipal garage, and 6 acres of adjacent wetland. Davy Creek, a tributary to the Rock River, flows through the adjacent wetland about 100 meters south of Elm Street. Several small businesses line Oak Street to the north and back up to Chicago and North Western Railroad tracks. Residential areas lie west of Eva Street and south of Elm. East of the municipal garage is a baseball diamond and more residential property. A map depicting the site boundaries and each of the OUs is provided in Figure 2 in Appendix B. The area immediately surrounding the OECI site is a mixture of light industrial, commercial, municipal, and residential parcels.

OECI operated from 1957 until February 6, 1991. Electroplating processes performed at the facility used nickel, chrome, zinc, copper, brass, cadmium, and tin. Finishing processes included chromate conversion, coating, and anodizing. Contaminants in the effluent from the electroplating processes are believed to have originated from several sources which contributed to the waste stream: spent process solutions, the drag-out of various processing baths into subsequent rinses, accidental spills, leaks, plating tanks filter systems, and sludges from the bottom of plating baths. Wastewaters generated at the OEC

facility can be divided into three categories: 1) cyanide-bearing; 2) chromium-bearing; and 3) acid-alkaline. Prior to 1972, OEC directly discharged untreated wastewaters into the wetland area south of the OEC property (the Davy Creek wetlands).

There is no public water supply, and the Town relies on groundwater drawn from individual residential wells. Davy Creek is a warm-water sport fishery and there are two parks with facilities for baseball, skeet shooting, and picnicking within a quarter mile of the Site. EPA and WDNR anticipate reuse of the four-acre parcel formerly occupied by the OECI facility with commercial or light industrial development. Appropriate restrictions preventing groundwater use, residential use, and excavation are required by the institutional controls (ICs) placed on the site. EPA has had a federal tax lien on the property since 1988, OECI has been dissolved since 1991, and the property has been in tax delinquency since 1994.

EPA placed the OECI Site on the National Priorities List (NPL) in September 1984.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Oconomowoc Electroplating Company Co., Inc.		
EPA ID: WID0061002755		
Region: 5	**State:** WI	**City/County:** Ashippun / Dodge

SITE STATUS	
NPL Status: Final	
Multiple OUs? Yes	**Has the site achieved construction completion?** Yes

REVIEW STATUS
Lead agency: EPA ***[If "Other Federal Agency", enter Agency name]*:**
Author name (Federal or State Project Manager): Bill Murray
Author affiliation: EPA
Review period: 11/8/2021 - 1/14/2021
Date of site inspection: 10/17/2021
Type of review: Statutory
Review number: 6
Triggering action date: 5/16/2017
Due date *(five years after triggering action date)*: 5/16/2022

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

Hazardous substances have been released at the site. The contaminants of concern (COCs) found in each medium include the following:

Soil
Arsenic
Cadmium
Chromium
Copper
Cyanide
1,1 -Dichloroethane
Lead
Nickel
Toluene
1,1,1 -Trichloroethane
Trichloroethylene (TCE)
Zinc

Groundwater
Arsenic
Cadmium
Chromium
Copper
Cyanide
Lead
Manganese
Mercury
Zinc
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethene (total)
Tetrachloroethene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
TCE
Vinyl Chloride (VC)

Sediment
Cyanide
Copper
Nickel

Exposure to soil and groundwater containing these COCs is associated with significant human health risks because they exceed EPA's risk management criteria. Contaminated groundwater at, or emanating from, the OECI site presented the highest carcinogenic risk from these COCs due to potential exposure by ingestion. Based on conclusions in the Remediation System Evaluation (2000) and Groundwater Extraction System Evaluation (2004), metals and cyanide are no longer monitored in groundwater. Soil contaminated with cadmium and lead posed the greatest non-carcinogenic risk to human health through potential dermal contact and ingestion by children and people working at the site. Davy Creek and the

wetlands area were contaminated with cadmium, chromium, nickel, copper, lead, zinc and cyanide, and toxicity tests confirmed that these contaminants exceeded levels known to be toxic to common aquatic species.

Response Actions

Response actions began in 1979 with a WDNR investigation of sludge migrating offsite from the facility into the adjacent wetlands and Davy Creek. In 1981, the State of Wisconsin filed a suit against OECI alleging violations of its WPDES discharge permit. OECI was ordered by the State of Wisconsin to cease discharges in 1982. EPA performed a preliminary assessment of the Site in 1983 and placed it on the NPL in 1984. WDNR investigated residential wells in the area between 1983 and 1987. EPA initiated a Remedial Investigation/Feasibility Study in 1987. No removal actions were completed prior to decision documents being finalized.

EPA signed a Record of Decision (ROD) for OUs 1, 2, 3 and 4 of the OECI site on September 20, 1990 (U.S. EPA, 1990). The Remedial Action Objectives (RAOs) in the ROD were developed from data collected during the remedial investigation, and the selected remedy employed multiple remedial actions to eliminate the sources of contamination and restore contaminated groundwater. The RAOs required; (1) the elimination of principal threats by reducing the toxicity and mobility of the highly contaminated materials, (2) reduction of potential exposure to VOCs and metals, and (3) the restoration of groundwater to levels below state prevention action limits (PALs).

The 1990 ROD identified four OUs, and the selected remedy required the following remedial actions:

- Excavation, treatment, and disposal at an off-site RCRA Subtitle C disposal facility of the impounded water, sludge, and contaminated soils associated with the two RCRA Subtitle C lagoons (OU1);
- Treatment and disposal at an off-site RCRA Subtitle C disposal facility for all other contaminated soil around the OECI facility not associated with the RCRA lagoons or beneath the OECI buildings, including the fill area, the lowlands area, the drainage ditches, and the parking lot (OU2);
- Construction and operation of a groundwater extraction and treatment system to achieve state groundwater quality standards for contaminated groundwater associated with the Site, with treated water being discharged to Davy Creek in compliance with the substantive requirements of a Wisconsin Pollution Discharge Elimination System permit (OU3); and
- Excavation, treatment, and disposal at an off-site RCRA Subtitle C disposal facility for the most highly contaminated sediments in the Davy Creek wetlands area as an interim action because cleanup goals had not been established for contaminated sediment when the ROD was signed, and additional monitoring of Davy Creek and the wetlands performed after the remediation to determine the effectiveness of the remedy (OU4).

EPA issued a 1991 ESD to add a fifth OU to authorize dismantling the abandoned OECI facility and disposing of associated debris and issued an ESD in 1994 to establish the final cleanup goals for the adjacent wetlands.

EPA signed a Record of Decision Amendment (AROD) on May 16, 2011, to change the selected remedy for OU3 from groundwater extraction and treatment to either source area removal or in-situ treatment, followed by monitored natural attenuation (MNA) until the RAO for groundwater is attained. Groundwater, soil and sediment cleanup standards are in the tables below.

Groundwater Cleanup Standards

Compound	NR140 Enforcement Standard (ES) (µg/L*)	NR140 Preventive Action Limit (PAL) (µg/L)
1,1,1-Trichloroethane	200	40
1,1-Dichloroethene	7.0	0.7
1,4-Dioxane	3.0	0.3
Chloroform	6.0	0.6
cis-1,2-Dichloroethene (cis-DCE)	70	7.0
Tetrachloroethene	5.0	0.5
trans-1,2-Dichloroethene (trans-DCE)	100	20
Trichloroethene (TCE)	5.0	0.5
Vinyl chloride (VC)	0.2	0.02

* µg/L: micrograms per liter

Soil Cleanup Levels

Compound	Concentration (mg/kg*)
Arsenic	47.0
Lead	300.0
Cadmium	500.0
Nickel	2500.0
Copper	1500.0
Chromium	1200.0
Zinc	4500.0
Cyanide	90.0
1,1·Dichloroethane	0.070
Toluene	0.075
1,1,1-Trichloroethane	0.210
Trichloroethene	0.800

*mg/kg: milligrams/kilogram

Sediment Cleanup Levels

Compound	Concentration (mg/kg)
Cyanide	4
Nickel	54
Copper	85

Status of Implementation

Remedial actions for OU1 were completed in 1994 and included excavation, treatment, and disposal at an off-site RCRA Subtitle C disposal facility for the impounded water, sludge and contaminated soils associated with the two RCRA Subtitle C lagoons. Remedial actions for OU2 were then completed in 1995 and included the treatment and disposal at an off-site RCRA Subtitle C disposal facility of all other contaminated soil around the OECI facility not associated with the RCRA lagoons or beneath the OECI buildings, including the fill area, the lowlands area, the drainage ditches, and the parking lot. OU4 remedial actions were also completed in 1995 and included excavation, treatment, and disposal at an off-site RCRA Subtitle C disposal facility of the highly contaminated sediments in the Davy Creek adjacent wetlands area. Removal of the building and disposal of associated debris, OU5, was completed in 1992.

EPA ruled out source area removal as an OU3 remedy after a membrane interface probe study established that the depth and horizontal extent of the source area made this option impractical. In-situ soil mixing (ISSM) was applied instead, using a proprietary source of zero valent iron to promote reductive dechlorination of the residual TCE in the source area. ISSM at the OECI Site treated a total of 2,269 cubic yards of contaminated source material and was carried out in June and July of 2013.

Responsibility for implementing the MNA remedy in OU3 was transferred to WDNR in 2014 after completion of the ISSM project and the 10-year Long-Term Response Action (LTRA). The MNA component of the remedy relies on natural attenuation and performance monitoring of the residual groundwater plume, along with regular (semiannual through 2017, then annual) compliance monitoring to ensure that the residential wells already affected by low-level contamination remain below health-based standards.

Natural attenuation is the process by which contaminant concentrations are reduced by one or more inherent subsurface processes including volatilization, dispersion, adsorption, and biodegradation. The MNA remedy requires the ongoing analysis of natural attenuation parameters in the existing network of 33 shallow, mid-depth, and bedrock monitoring wells to ensure that the anaerobic conditions conducive to biological reductive dechlorination of site VOCs remain present in the aquifer. Analysis of the results of the natural attenuation parameters is used to assesses the degree of natural attenuation that is occurring.

Institutional Controls

ICs are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. Compliance with ICs is required to ensure long-term protectiveness for any areas that do not allow for UU/UE. Cleanup goals for soil, outlined in the decision documents, were based on commercial/ industrial use; cleanup goals for groundwater were based on (eventual) UU/UE; cleanup goals for the wetlands were based on commercial/ industrial use; and cleanup goals for the surface were set at water quality standards and therefore no restrictions are required. Table 1 summarizes the ICs required for the OECI Site and they are further discussed as follow. The 2011 AROD states that "institutional controls will be designed for OECI in coordination with WDNR (e.g., deed restrictions such as easements and covenants, deed notices, land use restrictions such as zoning and local permitting, ground-water use restrictions, and public health advisories) to ensure the long-term protectiveness of the remedy."

Title to the property formerly occupied by the OECI facility is still in the name of the Oconomowoc Electroplating Company, Inc., and this property has been in tax delinquency since 1994. Since OECI no longer exists, and because deed restrictions are unenforceable without an owner to accept their imposition, EPA and WDNR are using a combination of informational and governmental controls to ensure long-term protectiveness for the OECI Property and other parcels within the OECI Site.

In Wisconsin, placement of a site on the State's web accessible DNR database, known as the Bureau for Remediation and Redevelopment Tracking System (BRRTS), in conjunction with WDNR issuing a Continuing Obligations (CO) letter, serve as ICs. WDNR has placed the OECI Site on the BRRTS, and they issued a CO letter for the 3.09-acre parcel formerly occupied by the facility on September 7, 2018. The CO letter applies as the property is sold or transferred, and each new owner is responsible for complying with its requirements. The CO letter thereby ensures the long-term protection of public health and the environment in accordance with state laws, and thus complies with the requirements of the 2011 AROD.

To ensure the adjacent wetlands (OU4) are also covered by appropriate ICs, EPA sent notice letters (informational controls) to the owners of the two affected parcels within the Site on August 20, 2018, giving them notice that EPA will be filing Notices of Environmental Contamination (Deed Notices) for the two parcels with the Dodge County Registrar of Deeds.

Table 1: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Soil treated to industrial cleanup standards	Yes	Yes	Sitewide	Prohibit Residential Use	- WDNR Continuing Obligations letter, September 6, 2018 - WDNR BRRTS Web database per Wis. Stat. § 292.12
Groundwater	Yes	Yes	Sitewide	Restrict Groundwater Use Until Cleanup Standards Are Achieved	- WDNR Continuing Obligations letter, September 6, 2018 - WDNR BRRTS Web database per Wis. Stat. § 292.12
Wetlands	Yes	Yes	See Figures 3 and 4	Provide notice and information concerning the possible presence of contamination and caution interested parties	- Notice letters, August 20, 2018 - Notices of Environmental Contamination (Deed Notices) (planned)

				against using the property in any manner that may increase the risk of exposure to contamination and/or result in an imminent and substantial endangerment to public health, welfare, or the environment.	

Figures 2, 3, and 4 showing the areas in which the ICs apply are included in Appendix B.

Current Compliance: During the October 27, 2021 Site inspection, EPA and WDNR personnel did not observe any uses of the OECI Site that are not protective based upon the industrial use cleanup assumptions. Furthermore, there is no evidence that anyone is being exposed to groundwater that has contaminants above health-based standards [i.e., the federal Maximum Contaminant Level (MCL) or the Wisconsin Enforcement Standard (ES)].

Long-Term Stewardship: Long-term stewardship procedures are needed to ensure that effective ICs are monitored, maintained, and enforced.

IC Follow up Actions Needed: Deed Notices must be filed on the two wetland properties that do not have ICs. An Institutional Control Implementation and Assurance Plan (ICIAP) should be developed for the OECI site. The ICIAP will document activities associated with ensuring long-term stewardship of ICs and specifying the people and/or organizations that will be responsible for these activities.

Systems Operations/Operation & Maintenance

Since the 2011 AROD changed the OU3 remedy for the OECI site from groundwater extraction and treatment to MNA, there are no longer any "systems" on-site requiring operation and maintenance. The groundwater monitoring well network requires occasional maintenance due to normal wear, tear, and exposure to weather. The network contains 13 shallow wells, 11 mid-depth wells, and 9 deep bedrock wells. In addition to annual inspections by EPA, the Site is regularly monitored by WDNR to ensure protectiveness under a cooperative agreement with EPA. Groundwater monitoring wells are shown on Figure 5 in Appendix B.

III. PROGRESS SINCE THE LAST REVIEW

This section includes the protectiveness determinations and statements from the last FYR as well as the recommendations from the last FYR and the current status of those recommendations.

Table 2: Protectiveness Determinations/Statements from the 2017 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1/Sitewide	Short-term Protective	The remedy at the OECI Site currently protects human health and the environment. Remedy completion for OUs 1, 2, 4, and 5, comprising the removal of lagoon sludge, contaminated soil, contaminated sediment, former facility, and associated debris, has achieved the RAOs of minimizing the migration of contaminants to groundwater and surface water and preventing ingestion or direct contact with contaminated media. Implementation of the selected remedy for OU3 under the 2011 AROD is addressing the residual sources of contamination and ensuring that the groundwater from residential wells remains below risk-based standards while allowing natural attenuation to achieve cleanup goals in a reasonable period of time. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: Development of an ICIAP and implementation of ICs. The remedy will achieve completion when groundwater cleanup standards are attained throughout the contaminant plume.

Table 3: Status of Recommendations from the 2017 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
1/Sitewide	Long-term stewardship procedures are needed to ensure that effective ICs are monitored, maintained and enforced.	Develop and implement an ICIAP to include procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective.	Ongoing	Modification of existing Cooperative Agreement with WDNR is underway to include development of ICIAP in their scope	
1/Sitewide	ICs are needed for areas not meeting UU/UE.	Implement ICs by issuing a Wisconsin Continuing Obligations letter.	Completed	WDNR issued a Continuing Obligations Letter September 6, 2018	9/6/2018

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

On January 4, 2022, EPA published a public notice in the Watertown Daily Times stating that EPA was conducting a FYR at the OECI site and inviting the public to submit any comments. No public comments were received. The results of the FYR and the report will be made available at the OECI site information repository located at the Ashippun Town Hall, W1266 Highway O, Oconomowoc, WI. No community member or other individual has expressed an interest in conducting an interview related to the FYR since the notice appeared in the newspaper. No WDNR personnel or contractors were interviewed.

Data Review

Groundwater is sampled to assess the effectiveness of the MNA remedy for the chlorinated volatile organic compounds (CVOCs) found in the groundwater and to ensure that the remedy remains protective of the nearby residential water supply wells. Groundwater is monitored in accordance with the November 2014 Quality Assurance/Quality Control Plan for Groundwater Monitoring prepared by Tetra Tech for WDNR (Tetra Tech, 2014). Groundwater was sampled semi-annually in 2017 and reduced to annually in 2018. Contracting issues between WDNR and their contractor prevented sampling in 2019. The COVID-19 pandemic prevented sampling in 2020. As a result, only monitoring data from 2017 and 2018 are available for this FYR. Groundwater monitoring resumed in November 2021. Validated data from the November 2021 sampling will be available in late June 2022.

A groundwater monitoring event comprises the following activities:

- Measure the depth to groundwater in the 33 existing OECI Site monitoring wells and note the condition of each well. Depth from the surface to groundwater is used to determine the direction of flow.
- Collect groundwater samples from 28 of the Site monitoring wells for laboratory analyses of VOCs in addition to the following MNA parameters: methane, ethane, ethene, acetylene, total iron, dissolved iron, total manganese, dissolved manganese, alkalinity, chloride, sulfate, and total organic carbon. Field measurements of groundwater temperature, pH, specific conductance, oxidation-reduction potential (ORP), dissolved oxygen (DO) and turbidity are also taken at each sampling event.
- Collect groundwater samples from eight residential wells.

Groundwater Flow and Hydraulic Gradients: Depth to groundwater measurements collected from the OECI site monitoring wells are used to calculate water table contours, which are indicative of the general direction of groundwater flow. Groundwater flow at the water table and at mid-depth across the site is to the southwest, towards Davy Creek, while the general direction of groundwater flow in the bedrock is from east to west across the site.

Vertical gradients calculated for the nested OECI site monitoring wells show predominantly downward gradients in the monitoring well nests located north of Elm Street, and predominantly upward gradients

in the monitoring well nests located south of Elm Street in the wetlands near Davy Creek, indicating groundwater is recharging north of Elm Street and discharging to the wetlands and Davy Creek.

Contaminant Concentrations in Monitoring Wells: A summary of wells exhibiting CVOC detections relative to the applicable Wisconsin Administrative Code Chapter NR140 (Chapter NR 140) ES and PAL in groundwater samples collected from the OECI site monitoring wells during the November 2017 and 2018 sampling events is presented in Table 4.

Table 4: Summary of CVOC concentrations from 28 monitoring wells compared to applicable Chapter NR140 ES and Chapter NR 140 PAL

Compound	**Chapter NR140 ES (µg/L)**	**Chapter NR140 PAL (µg/L)**	**LOD (µg/L)**	**LOQ (µg/L)**	**Number of Wells: ES or Greater**	**Number of Wells: PAL or Greater, but Less Than ES**	**Number of Wells with a J-flagged Result**	**Number of Wells with a Detection**
1,1,1-Trichloroethane	200	40	0.050	0.17	0	1	1	6
1,1-Dichloroethene	7.0	0.7	0.060	0.20	1	3	3	7
cis-1,2-Dichloroethene	70	7.0	0.070	0.23	4	5	2	18
Tetrachloroethene	5.0	0.5	0.050	0.18	1	0	1	2
trans-1,2-Dichloroethene	100	20	0.040	0.14	1	1	2	12
TCE	5.0	0.5	0.050	0.17	7	0	5	15
Vinyl chloride	0.2	0.02	0.019	0.064	8	4	4	10

Notes:
LOD = Undiluted Limit of Detection
LOQ = Undiluted Limit of Quantitation
J flag = Reported concentration was between the LOD and LOQ.

The analytical data for the CVOCs indicate the center of mass of the TCE plume is south of Elm Street and the highest TCE impacts occur at water table monitoring well MW-105S (610 µg/L). The TCE plume extends further west in the zone monitored by the mid-depth monitoring wells compared to the zone monitored by the water table monitoring wells. The analytical data from the bedrock monitoring wells and residential wells indicate TCE impacts are of very limited extent in the bedrock and where present, do not exceed the Chapter NR140 ES of 5.0 µg/L. The monitoring wells time series charts produced from the January 2009 through November 2018 sampling events analytical results indicate TCE concentrations are non-detect, stable or decreasing in 27 of the 28 monitoring wells that are part of the OECI Site groundwater sampling program, which suggests the OECI Site plume is stable to decreasing.

The groundwater sample collected from water table monitoring well MW-16S during the November 2017 and November 2018 sampling events had the highest VC impacts of 41 µg/L and 25 µg/L respectively, which places the center of mass of the VC plume south of Elm Street. VC impacts exceeding the Chapter NR140 ES of 0.20 µg/L are most extensive in the zone monitored by the mid-depth unconsolidated deposits monitoring wells. The analytical results from the bedrock monitoring wells and residential wells indicate VC impacts in the bedrock, where present, do not exceed the Chapter

NR140 ES and are less extensive compared to the extent of VC impacts in the unconsolidated deposits. A complete table of results can be found in Appendix D.

MNA Effectiveness: Detections of VC and cis-DCE in the majority of the monitoring well samples indicate reductive dechlorination of TCE is continuing to occur within the OECI site contaminant plume. Results of MNA parameters including dissolved oxygen (DO) and oxidation-reduction potential (ORP) from the most recent sampling events indicate conditions that support reductive dechlorination at most of the wells onsite. Data since the last FYR shows TCE concentrations are non-detect, stable or decreasing in 27 of the 28 monitoring wells (up from 25 for the previous reporting period), cis-DCE concentrations are non-detect, stable or decreasing in 21 of the monitoring wells (the same as the previous reporting period and up from 19 for the October 2015 through June 2016 reporting period) and VC concentrations are non-detect, stable or decreasing in 22 of the monitoring wells (up from 21 for the previous reporting period). Groundwater monitoring well contaminant concentration time series charts can be found in Appendix E.

Contaminant Concentrations in Residential Wells: TCE and VC are the primary contaminants of concern for the residential wells as both have been detected above their respective Chapter NR140 PALs in several of the residential well samples from previous sampling events. The TCE and VC results for the residential wells from the November 2017 and 2018 sampling events are summarized below.

TCE and VC in Residential Wells 2017 - 2018

Compound	**TCE (µg/L)**		**VC (µg/L)**	
Year	**2017**	**2018**	**2017**	**2018**
PW-03	0.64	0.38	<0.019	<0.019
PW-04	0.097 J	NS	<0.019	NS
PW-05	NS	0.12 J	NS	<0.019
PW-07	<0.050	<0.050	0.036 J	0.038 J
PW-08	0.10 J	0.089 J	0.036 J	0.039 J
PW-09	0.082 J	0.071 J	0.037 J	0.035 J
PW-10	<0.050	<0.050	<0.019	<0.019
PW-11	<0.050	<0.050	<0.019	0.027 J

Notes:

- NS = not sampled
- J flag = Reported concentration was between the limit of detection (LOD) and limit of quantitation (LOQ).
- Underlined values exceed the Chapter NR140 Preventive Action Limit for TCE and VC, which are 0.50 µg/L and 0.020 µg/L respectively.

As shown above, VC was detected in three of the seven residential wells sampled in November 2017 and in four of the seven residential wells sampled in November 2018. The reported VC concentrations in all the samples with VC detections exceed the Chapter NR140 PAL of 0.02 µg/L but are below the ES of 0.20 µg/L. As noted above, all the VC detections from the November 2017 and November 2018 sampling rounds are J-flagged results, which indicates the VC concentration in the samples were lower than the LOQ of 0.064 µg/L and therefore the listed concentration is an estimated value. The 2012 through 2018 VC results suggests VC impacts are stable to declining in the bedrock residential wells. The reported TCE concentration in the groundwater sample collected from residential Well ID: PW-03

during the November 2017 sampling event exceeded the Chapter NR140 PAL of 0.50 µg/L. The reported TCE concentrations were below the PAL in the three other residential wells that were sampled in 2017 that had TCE detections. TCE was detected in four of the seven residential wells that were sampled in 2018, but all the reported TCE concentrations were below the Chapter NR1401 PAL, including the sample collected from PW-03. 1,4-Dioxane concentrations in residential wells have not been detected above Chapter NR1401 PAL limits since analysis began in 2016. None of the other compounds detected in the residential well samples exceeded their respective Chapter NR140 groundwater quality standards.[1]

The residential well sampling results were reported to the property owners, and to the occupants of the house if the property owners did not reside on the property, using WDNR Site Investigation Sampling Results Notification Form 4400-249. A copy of the analytical report for the groundwater sample collected from the residential well, a table summarizing the analytical results and figure showing the location of the residential well on the property were included with the Site Investigation Sampling Results Notification Form. Copies of the notifications were also submitted to the WDNR Project Manager for the OECI Site. Copies of the notifications are provided in the combined 2017-2018 Groundwater Monitoring Report found in Appendix D.

Site Inspection

The inspection of the Site was conducted on 10/27/2021. In attendance were EPA RPM, Bill Murray, and Gwen Saliares, WDNR Project Manager. The purpose of the inspection was to assess the protectiveness of the remedy. The Site was found to be in good condition as evidenced by the overall conditions observed including maintained grass, ditches, and swales, no litter or debris, and all groundwater monitoring wells were accessible and in good condition. No conditions were observed that could impact the current or future protectiveness. The Site Inspection Checklist is included in Appendix E. Photographs from the Site Inspection can be found in Appendix F.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Yes - The review of documents, data, Applicable or Relevant and Appropriate Requirements, risk assumptions, and the results of the Site inspection indicate that the remedy is functioning as intended by the decision documents. Removing the lagoon sludge, contaminated soil, contaminated wetland sediment, and the former facility and associated debris (OUs 1, 2, 4, and 5) has minimized the migration of contaminants to groundwater and surface water and prevented ingestion or direct contact with contaminated media. The 2011 AROD predicted it would take approximately 15 years for natural attenuation to reduce the contaminant concentrations in affected groundwater to remedial standards. Implementation of the selected remedy for OU3 under the 2011 AROD indicates that natural attenuation is addressing the residual sources of contamination and regular monitoring is ensuring that the groundwater from residential wells remains below risk-based standards while natural attenuation works to achieve cleanup goals in a reasonable period of time. Even though monitoring did not occur in 2019 and 2020, prior sampling indicated CVOC concentrations were stable or decreasing in 27 of 28

[1] Wisconsin PALs serve to inform the WDNR of the *potential* for groundwater contamination. Wisconsin PALs are established at an order of magnitude lower than the ES. Although a preventive action limit exceedance is not intended to require remedial action, activities affecting groundwater must be regulated.

monitoring wells. The 2012 through 2018 VC and TCE results indicate impacts from both contaminants are stable to declining in the bedrock residential wells and are below their respective ESs. Institutional controls at the Site are defined and enforced through a Continuing Obligations letter from WDNR. WDNR has the authority under Wis. Stat. § 292.12(2) to impose limitations and conditions on a property to ensure that the conditions at the Site remain protective of public health, safety and welfare, and the environment.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

No – Emerging COCs requiring additional investigation have been identified at the Site. 1,4-Dioxane, a stabilizer for chlorinated solvents has been analyzed in groundwater since 2016 and has not been detected above PALs. The 2012 through 2018 VC data indicates VC impacts are stable to declining in the bedrock residential wells. TCE concentrations were below the Chapter NR1401 PAL limits during the most recent round of residential well sampling in 2018. Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS), used as surfactants in the electroplating industry, will be analyzed in groundwater in the fall of 2022. Otherwise, the exposure assumptions used to develop the baseline Human Health Risk Assessment for the 1990 ROD included both current exposures and potential future exposures. These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. There have been no changes in the toxicity factors for the COCs used in the baseline risk assessment that would affect the current site remediation goals. There was a change in the toxicity value for TCE that impacted the soil gas screening level for vapor intrusion (VI). The value for TCE went from 30 µg/m3 to 10.7 µg/m3 and a VI investigation was performed in the off-site residential area in December 2012. The VI investigation completed in the off-site residential area found no exceedances of indoor air vapor action levels (VAL). Although site-related VOCs were detected in shallow groundwater, the concentrations were below applicable groundwater screening criteria. There have been no other changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No - No other information has come to light that could call into question the protectiveness of the remedy. This includes impacts from natural disasters such as earthquakes, lightning strikes/wildfires, drought, floods and tornadoes. No Site changes or vulnerabilities to the remedy can be identified as a result of climate change. This was verified through review of reports submitted and observations made during the October 2021 FYR Site inspection.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations
OU(s) without Issues/Recommendations Identified in the Five-Year Review:
none

Issues and Recommendations Identified in the Five-Year Review:

OU(s): OUs 1, 2, 3, 4, 5/Sitewide	Issue Category: Institutional Controls			
	Issue: Long-term stewardship procedures are needed to ensure that effective ICs are monitored, maintained and enforced.			
	Recommendation: Develop and implement an ICIAP to include procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	State	EPA	5/31/2023

OU(s): OU4	Issue Category: Institutional Controls			
	Issue: Two non-residential properties require deed restrictions.			
	Recommendation: File Deed Notices.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA	5/31/2023

OU(s): OU3	Issue Category: Monitoring			
	Issue: PFAS and 1,4-Dioxane have been identified as emerging contaminants of concern in groundwater.			
	Recommendation: Conduct PFAS and 1,4-Dioxane sampling and analysis in groundwater including residential wells.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA/State	EPA	5/31/2023

VII. PROTECTIVENESS STATEMENT

OU1 Protectiveness Statement
Protectiveness Determination: Short-term Protective
Protectiveness Statement:

The remedy for OU1 at the OECI Site currently protects human health and the environment. Remedy completion for OU1 included clean closure by excavation, treatment, and disposal at an off-site RCRA Subtitle C disposal facility for the impounded water, sludge and contaminated soils associated with the two lagoons. RAOs of minimizing the migration of contaminants to groundwater and surface water and preventing ingestion or direct contact with contaminated media have been achieved. However, in order for the remedy to be protective in the long term, the following action needs to be taken to ensure protectiveness: Develop and implement an ICIAP to include procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective.

OU2 Protectiveness Statement

Protectiveness Determination:
Short-term Protective

Protectiveness Statement:
The remedy for OU2 at the OECI Site currently protects human health and the environment. Remedy completion for OU2 included treatment and disposal at an off-site RCRA Subtitle C disposal facility for all other contaminated soil around the OECI facility not associated with the lagoons or beneath the OECI buildings, including the fill area, the lowlands area, the drainage ditches, and the parking lot. RAOs of minimizing the migration of contaminants to groundwater and surface water and preventing ingestion or direct contact with contaminated media have been achieved. However, in order for the remedy to be protective in the long-term, the following action needs to be taken to ensure protectiveness: Develop and implement an ICIAP to include procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective.

OU3 Protectiveness Statement

Protectiveness Determination:
Protectiveness Deferred

Planned Addendum Completion Date:
5/31/2023

Protectiveness Statement:
A protectiveness determination of the remedy at OU 3 cannot be made at this time until further information is obtained. Further information will be obtained by taking the following action: Conduct PFAS sampling and analysis in groundwater including residential wells. PFAS has been identified as emerging contaminants of concern in groundwater. It is expected that this action will take approximately 1 year to complete, at which time a protectiveness determination will be made.

OU4 Protectiveness Statement

Protectiveness Determination:

Short-term Protective
Protectiveness Statement: The remedy for OU4 at the OECI Site currently protects human health and the environment. Remedy completion for OU4 included excavation, treatment, and disposal at an off-site RCRA Subtitle C disposal facility for the most highly contaminated sediments in the Davy Creek wetlands area. RAOs of minimizing the migration of contaminants to groundwater and surface water and preventing ingestion or direct contact with contaminated media have been achieved. However, in order for the remedy to be protective in the long-term, the following action needs to be taken to ensure protectiveness: Develop and implement an ICIAP to include procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective; and file Deed Notices.

OU5 Protectiveness Statement
Protectiveness Determination: Short-term Protective
Protectiveness Statement: The remedy for OU5 at the OECI Site currently protects human health and the environment. Remedy completion for OU5 included demolition of facility and disposal of all associated debris. RAOs of minimizing the migration of contaminants to groundwater and surface water and preventing ingestion or direct contact with contaminated media have been achieved. However, in order for the remedy to be protective in the long-term, the following action needs to be taken to ensure protectiveness: Develop and implement an ICIAP to include procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective.

Sitewide Protectiveness Statement	
Protectiveness Determination: Protectiveness Deferred	*Planned Addendum Completion Date:* 5/31/2023
Protectiveness Statement: A Sitewide protectiveness determination of the remedy cannot be made at this time until further information is obtained. Further information will be obtained by taking the following action: Conduct PFAS sampling and analysis in groundwater including residential wells. PFAS has been identified as emerging contaminants of concern in groundwater. It is expected that this action will take approximately 1 year to complete, at which time a protectiveness determination will be made.	

VIII. NEXT REVIEW

The next FYR report for the OECI Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

GeoTrans, Inc, 2001. Remediation System Evaluation, Oconomowoc Electroplating Superfund Site, Ashippun, Wisconsin

RMT, 2004. Hydrogeologic Investigation and Groundwater Extraction System Evaluation, Former Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

Tetra Tech, 2014. Quality Assurance/Quality Control Plan for Groundwater Monitoring, Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

Tetra Tech, 2019. Annual Groundwater Monitoring Report, November 2017 and November 2018 Sampling Events, Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

U.S.EPA, 1990. Record of Decision Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

U.S.EPA, 1991. Explanation of Significant Differences, Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

U.S.EPA, 1994. Explanation of Significant Differences, Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

U.S.EPA, 2011. Record of Decision Amendment, Oconomowoc Electroplating Company, Inc., Ashippun, Wisconsin

U.S.EPA, 2017. Fifth Five-Year Review Report for the Oconomowoc Electroplating Company, Inc. Superfund Site

WDNR, 2018. Approval of Remedial Actions with Continuing Obligations, Oconomowoc Electroplating Superfund Site, Ashippun, Wisconsin

WDNR, 2018. Site Investigation Sample Results Notification, Oconomowoc Electroplating Superfund Site, Ashippun, Wisconsin

WDNR, 2019. Site Investigation Sample Results Notification, Oconomowoc Electroplating Superfund Site, Ashippun, Wisconsin

OTHER APPENDICES

Appendix B: Figures

Appendix C: Approval of Remedial Actions with Continuing Obligations Letter

Appendix D: Groundwater Monitoring Well Analytical Results 2014 – 2018

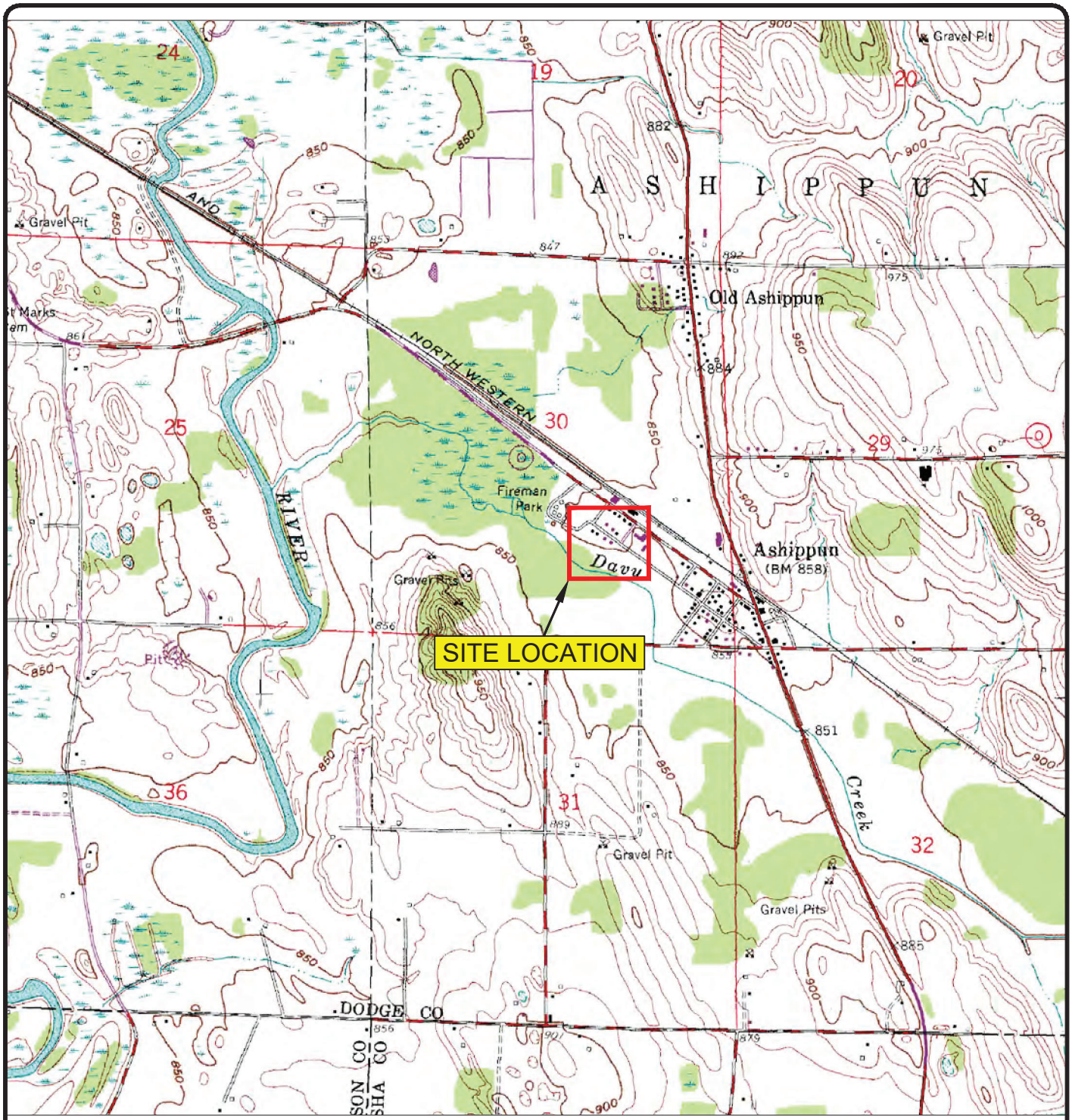
Appendix E: Groundwater Monitoring Well Time Series Chart

Appendix F: Site Inspection Form

Appendix G: Site Inspection Photographs

APPENDIX B

FIGURES



National Geodetic Vertical Datum of 1929
Contour Interval 10 Feet

SCALE
0 5000
FEET

QUADRANGLE LOCATION

TITLE: OCONOMOWOC ELECTROPLATING COMPANY, INC.
SITE LOCATION MAP

LOCATION: ASHIPPUN, WISCONSIN

TETRA TECH

CHECKED	MAM
DRAFTED	HJW
PROJECT	117-7413001
DATE	7/1/15

FIGURE: 1

Base map from U.S.G.S. 7.5' IXONIA, WISCONSIN topographic quadrangle map.

S:\CAD\OCONOMOWOC ELECTROPLATING\SITE LOCATION MAP.DWG

Figure 2: Operable Units and ICs

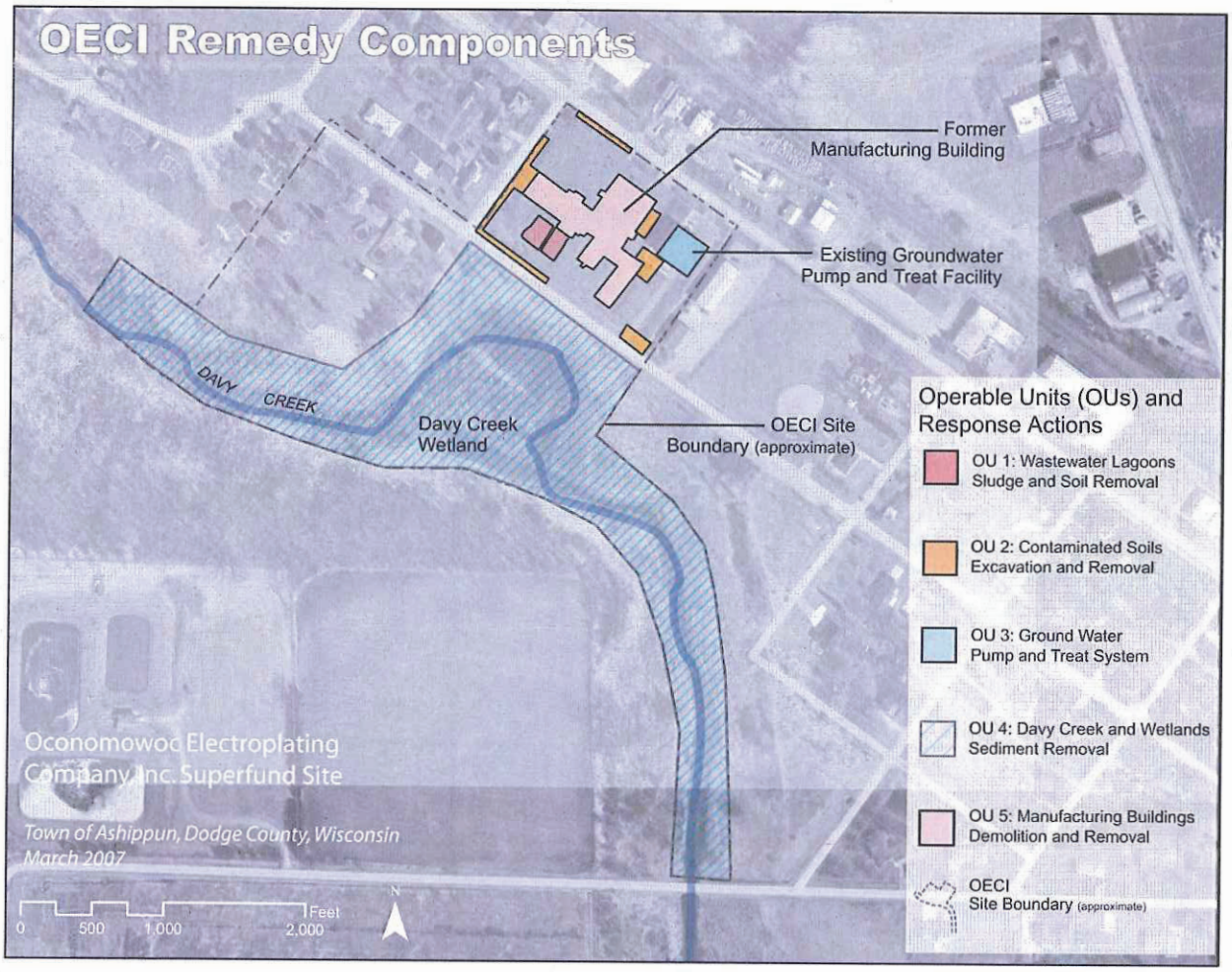


Figure 3: Wetland Property Requiring Deed Restriction

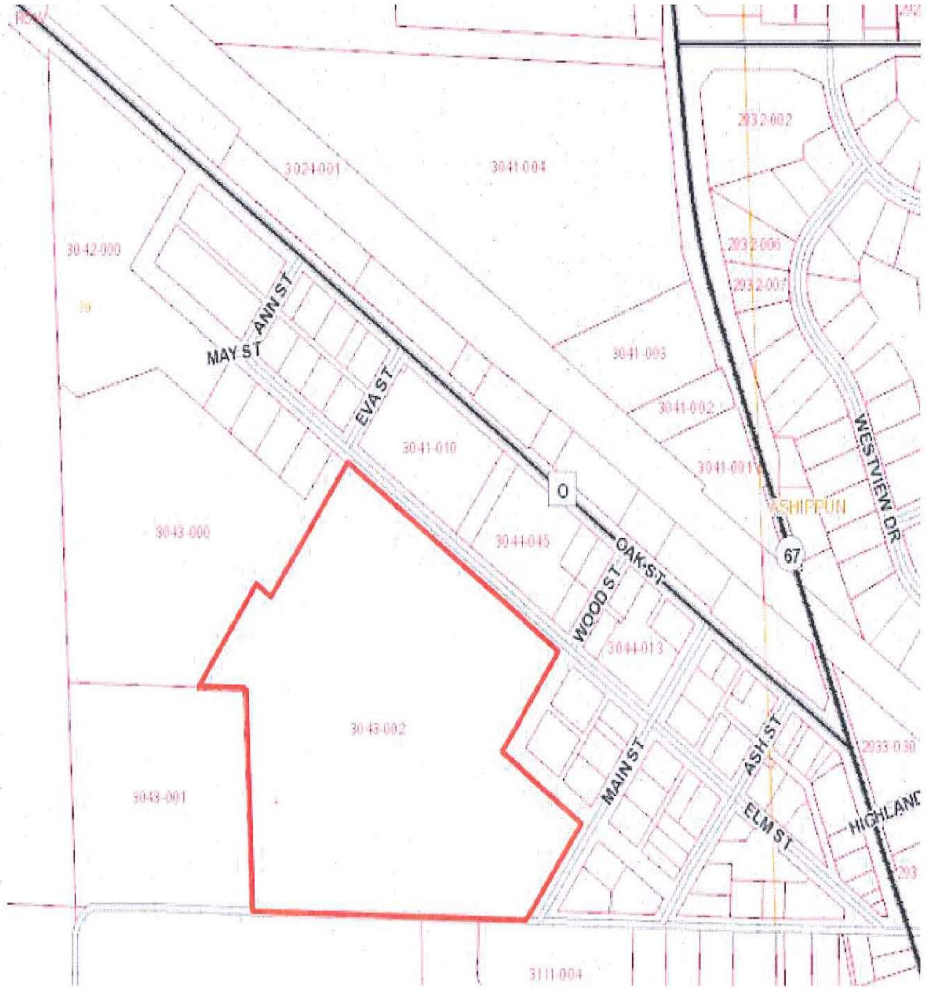
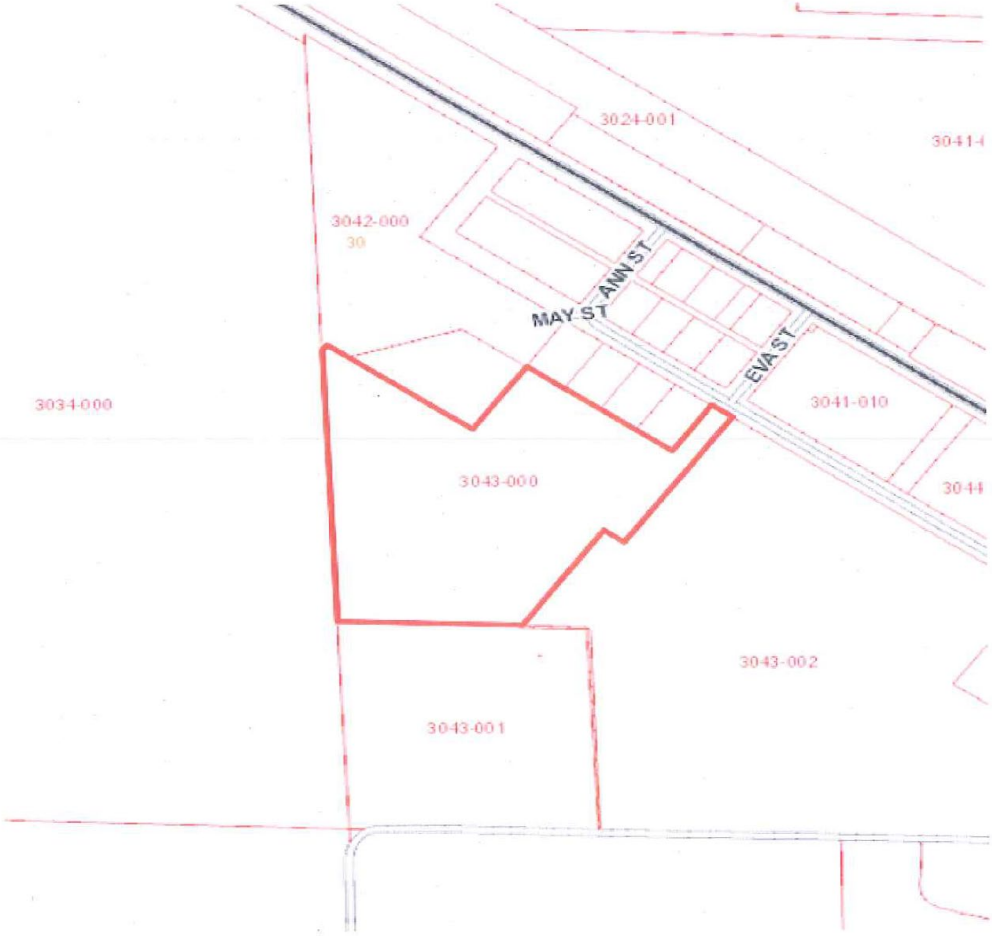


Figure 4: Wetland Property Requiring Deed Restriction




OECI WELLS
FOR DNR MONITORING
PW-05
PW-11
PW-03
PW-04
PW-09
MW-14DR
MW-4S
MW-4D
MW-102S
MW-102D
MW-101S
MW-101B
OECI Property Boundary
PW-07
MW-15D
MW-15B
MW-15S
PW-10
MW-3D
MW-1D
MW-1S
PW-08
TW-202I
MW-2D
MW-106S
MW-106D
OW-6
MW-9S
MW-103D
MW-103S
MW-13S
MW-13D
MW-12B
MW-12D
MW-12S
MW-5D
MW-104D
MW-104S
MW-105D
MW-105B
MW-16S
MW-105S
Underlined MWs are for depth-to-water measurements only (no sampling).
N
0 50 100 200 300 400 500 600 700 800 Feet
Aerial imagery is from 2017 NAIP

Figure 5

APPENDIX C

WDNR Approval of Remedial Actions with Continuing Obligations

Superfund/NPL site with continuing obligations, 5-year reviews required

State of Wisconsin
Department of Natural Resources
P.O. Box 7921, Madison, WI 53707-7921
dnr.wi.gov

Ongoing Cleanups with Continuing Obligations

Form 4400-281 (R 10/17)

Purpose

This cover sheet summarizes continuing obligations regarding environmental conditions on this property. Continuing obligations are legal mechanisms that:

1) Require or restrict certain actions to protect human health or the environment.
2) Minimize human and natural resource exposure to contamination, and/or
3) Give notice of the **existence** of residual contamination

Learn more about continuing obligations at **http://dnr.wi.gov/topic/brownfields/residual.html**

DNR Property Information:

DNR Approval Date:

BRRTS #: 02-14-000905 (No Dashes) FID #: 114004220

ACTIVITY NAME: OCONOMOWOC ELECTROPLATING (SF NPL)

PROPERTY ADDRESS: W2573 OAK ST

MUNICIPALITY: ASHIPPUN

PARCEL ID #: 00209173041010 (DODGE COUNTY)

***WTM COORDINATES:**

X: **640035** Y: **305651**

** Coordinates are in WTM83, NAD83 (1991)*

WTM COORDINATES REPRESENT:

- (•) Approximate Center Of Continuing Obligations
- ( ) Approximate Source Parcel Center

Please visit **http://dnr.wi.gov/topic/brownfields/wrrd.html** for additional DNR site information.

EPA Superfund Information (*if applicable*):

EPA ID: **WID006100275** *To view more information click on the EPA ID.*

SITE NAME: OCONOMOWOC ELECTROPLATING CO., INC. ASHIPPUN, WI

Requirements for *all* properties with Continuing Obligations

1. Properly manage contaminated soil if it is excavated. Sample and arrange appropriate treatment or disposal.
2. DNR approval is required if a water supply well will be constructed or reconstructed.

Site-Specific Requirement(s) - (BRRTS Action Code)

- [x] A "cap" over the contaminated area must be: (222)
  - ( ) Constructed & Maintained (•) Maintained
- [ ] A vapor mitigation system must be: (226)
  - ( ) Constructed & Maintained ( ) Maintained
- [x] The need for vapor control technology must be evaluated if a building will be constructed. (226)
- [x] The approved soil cleanup level is suitable for industrial use of the property. (220)
- [ ] DNR has approved construction on an abandoned landfill and certain maintenance requirements apply. (402) or (404)
- [ ] A structural impediment (e.g. building) is present which inhibited investigation/cleanup. Further environment work may be required if the impediment is removed. (224)
- [ ] DNR has directed a local government unit (LGU) to take an action and a LGU liability exemption applies. This exemption does not transfer to future private owners. (230)
- [x] Another type of continuing obligation has been established in DNR's remedial action plan approval. (228)
  Explain:

Continue groundwater monitoring.
Fill and seal lost monitoring wells, if found.

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Daniel L. Meyer, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

September 6, 2018

Oconomowoc Electroplating Co., Inc.
W2573 OAK ST
Ashippun, WI 53003

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Approval of Remedial Actions with Continuing Obligations
Oconomowoc Electroplating Superfund Site, W2573 Oak St., Ashippun, WI 53003
DNR BRRTS Activity #: 02-14-000905
FID #: 114004220
EPA WID006100275

Dear Property Owner:

The Department of Natural Resources (DNR) considers the remedial actions implemented at the Oconomowoc Electroplating Company, Inc. (OECI) Superfund site to be approved with continuing obligations. Current and future property owners must comply with the continuing obligations as explained in this letter until the conditions at the site no longer exist. The continuing obligations that apply are stated as conditions in this approval letter and are consistent with Wis. Stats. § 292.12 and Wis. Adm. Code ch. NR 722. They are meant to limit exposure to any remaining environmental contamination at the Property. Please read over this letter closely to ensure that you comply with all the conditions and continuing obligations. Provide this letter and all attachments to anyone who purchases, rents or leases this property from you.

This remedial action approval decision is based on the plans, data and correspondence submitted as part of the remedial action. Some of the pertinent information from report submittals are included as attachments in this letter. The DNR had reviewed the submittals for compliance with state laws and standards. The most-recent report submittal ("Annual Groundwater Monitoring Report") received on Sept. 7, 2017, is available from the Wisconsin Remediation and Redevelopment Database (WRRD) at: http://dnr.wi.gov/topic/Brownfields/WRRD.html. Background information on the contamination at the site is provided towards the end of this letter.

This remedial action approval with continuing obligations is intended to meet the intent of the Institutional Control Implementation and Assurance Plan required by the U.S. Environmental Protection Agency (EPA) at Superfund sites. The continuing obligations are based on the property being used for industrial purposes. Currently, the property is a vacant grassy lot with a few trees. The continuing obligations outlined in this letter apply to 3.09 acres comprising Parcel "3041-010" shown at: http://dodgecowi.wgxtreme.com/?zoom=13&lat=634927&lon=931412.

The Title to the OECI Site property is still in the name of the Oconomowoc Electroplating Company, Inc. The U.S. EPA has had a federal tax lien on the property since 1988 (Attachment 2). The owner has disappeared, and the property has been in tax delinquency since 1994. In conjunction with the U.S EPA's ROD-Amendment (2011) for the OECI site, institutional controls (ICs) are needed. The ICs will consist of restricting groundwater use and land use and implementing those restrictions. The U.S. EPA and the WDNR will use WDNR's Wisconsin Remediation and Redevelopment Database (WRRD) and authority to impose continuing obligations in this approval letter so as to ensure the protectiveness of the remedial actions at the OECI property. The DNR has the authority under Wis. Stats. § 292.12 (2) to impose limitations and conditions on a property to ensure that the conditions at the site remain protective of public health, safety and welfare, and the environment.

Continuing Obligations

The continuing obligations for this site are summarized below. Further details of the requirements are found in the section titled Remedial Action Approval Conditions.

- Continued environmental monitoring is required. Groundwater contamination is currently present above Wis. Adm. Code ch. NR 140 enforcement standards.
- Prior DNR approval is required before a new well can be constructed.
- If any of the remaining monitoring wells not used in the current monitoring are found, they must be properly filled and sealed and their fill and seal forms must be submitted to the DNR.
- The current soil cover overlying the contaminated soil must be maintained. There must be no breaching of the current soil cover. Any proposed changes to this barrier must have prior written approval from the DNR. Any residual soil contamination resulting from excavation or soil removal must be properly managed.
- The property is currently zoned industrial and land use is restricted to industrial. Before the land use may be changed from industrial to non-industrial, additional environmental work must be completed.
- The remaining soil contamination could result in vapor intrusion if future construction activities occur. As such, vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion and the DNR agrees that vapor control technologies are not needed.

Prohibited Activities

Certain activities are prohibited at this property to maintain the soil cover intended to prevent contact with the contaminated soil and groundwater below. You are required to notify the DNR before disturbing or modifying the site's soil cover, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where the soil cover is required unless prior written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

Remedial Action Approval Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property. Any change in the current site condition must be reported in writing to the DNR and any proposed change to the current site condition must be approved in writing by the DNR.

Residual Groundwater Contamination (Wis. Adm. Code ch. NR 140)
Groundwater contamination greater than enforcement standards is present on this contaminated property, as shown on the attached maps, Figures 6 thru 9. If you intend to construct a new well, you'll need prior DNR approval.

Continued Groundwater Monitoring Required (Wis. Adm. Code §§ NR 726.05 (9), NR 726.15 (2) (c))
Continued environmental monitoring is required. Attachment 14 shows the monitoring wells and private wells for monitoring. The sampling results must be submitted to the DNR within 10 business days of receipt of the results. An annual inspection of the wells is required to verify the integrity of the monitoring wells. Keep the inspection log up to date and on site. It needs to be submitted to the DNR only upon request. The DNR Form 4400-305 for the inspection log can be found at https://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf. You may be held liable for any problems associated with the monitoring wells if they create a conduit for contaminants to enter groundwater.

Fill and Seal Lost Monitoring Wells (Wis. Adm. Code §§ NR 141.25, NR 725.05). If any of the remaining monitoring wells not used in the current monitoring are found, they must be properly filled and sealed, and their fill and seal forms must be submitted to the DNR.

Residual Soil Contamination (Wis. Adm. Code ch. NR 718, chs. 500 to 536, or Wis. Stats. ch. 289)
If soil is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination (elevated metals or VOCs) is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with Wis. Adm. Code ch. NR 718 with prior DNR approval.

In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier (Wis. Stats. § 292.12 (2) (a), Wis. Adm. Code §§ NR 726.15, NR 727.07)
The soil cover that exists throughout the property shall be maintained in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

The cover approved for this closure was designed to be protective for an industrial use setting. Before using the property for non-industrial purposes, you must notify the DNR at least 45 days before taking an action, to determine if additional response actions are warranted. A cover or barrier for industrial land uses may not be protective enough if the use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings.

A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation.

Industrial Soil Standards (Wis. Adm. Code §§ NR 726.15, NR 727.07)
The soil contaminants of concern include VOCs. At a depth of 10 ft, soil-TCE (trichloroethylene) may still be as high as 36 mg/kg. The estimated extent of soil-TCE contamination (typically deeper than 4 ft) in 2012 prior to the deep in-situ soil mixing (ISSM) is shown on Attachment 6 - OECI Soil-TCE Data.

This property may not be used or developed for a residential, commercial, agricultural or other non-industrial use, unless prior written approval has been obtained from the DNR. The property owner shall notify the DNR at least 45 days before changing the use. An investigation and remedial action to meet applicable soil cleanup standards may be required at that time.

Vapor Mitigation or Evaluation (Wis. Stats. § 292.12 (2), , Wis. Adm. Code §§ NR 726.15, NR 727.07)
Vapor intrusion is the movement of vapors coming from volatile chemicals in the soil or groundwater, into buildings where people may breathe air contaminated by the vapors. Vapor mitigation systems are used to interrupt the pathway, thereby reducing or preventing vapors from moving into the building.

Future Concern: VOCs (TCE and VC) remain in soil and groundwater at the property, as shown on Attachment 6 (soil) and Attachments 7 thru 12 (groundwater), at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. Before a building is constructed, the property owner must notify the DNR at least 45 days before the change. Vapor control technologies are required for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR agrees that vapor control technologies are not needed.

This continuing obligation also applies to the right-of-way holders surrounding the OECI property.

Wisconsin Remediation and Redevelopment Database (WRRD)

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at: http://dnr.wi.gov/topic/Brownfields/WRRD.html, to provide public notice of residual contamination and continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), under the Contaminated & Cleaned Up Sites layer, at the same web address. Information about the site, including this remedial action approval letter, will be included in the database.

DNR approval prior to well construction or reconstruction is required in accordance with Wis. Adm. Code § NR 812.09 (4) (w). This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at https://dnr.wi.gov/files/PDF/forms/3300/3300-254.pdf.

All site information is also on file at the South Central Region Fitchburg DNR office, at 3911 Fish Hatchery Road, Fitchburg, WI 53711. This letter and other site information can be found as a Portable Document Format (PDF) in BRRTS on the Web.

Background Information on the Contamination at the OECI Property

The OECI property is located in the town of Ashippun, Dodge County, Wisconsin, as shown on Attachment 1 - Site Location. The property is shown as the 3.09-acre Parcel "3041-010" at: http://dodgecowi.wgxtreme.com/?zoom=13&lat=634927&lon=931412. The property from 1957 to 1990 was the site of OECI's industrial operation, performing metal degreasing/cleaning that used chlorinated solvents, and metal plating that used cyanide and heavy metals, including chromium, cadmium, copper, nickel, tin, and zinc in its process. During that time, the company discharged untreated wastewater into the nearby wetlands and Davy Creek. Two unlined lagoons on the western portion of the property had contained electroplating sludge. These lagoons had leaked and sometimes overflowed. Solvents primarily used inside the facility had also seeped into the ground. Volatile organic compounds (VOCs) made their way into the groundwater beneath and further downgradient of the site.

The OECI site has been in the U.S. EPA National Priorities List as a Superfund site since 1984. The EPA's Record of Decision (ROD) in 1990 called for the excavation and removal of the lagoon sludge, contaminated soil and contaminated portion of the nearby wetland, and the pump and treat (P/T) of the groundwater contaminant plume. The former OECI facility building was demolished and was removed in 1992, together with associated excavated contaminated soil. The lagoon sludge, additional contaminated soil, and sediments from the wetland and Davy Creek were further removed in 1994. The ROD-required P/T groundwater treatment system was installed in 1995. It is housed in an 80' by 70' remediation building constructed on the east side of the site. The P/T system started in 1996; however, with its relatively high operating cost, a long projected operating time and observed ineffectiveness (*e.g.*, plume underneath the nearby residences immediately west of the site wasn't being captured by the extraction system), the P/T system was shut down in July 2005. The P/T system's 5 groundwater extraction wells were filled and sealed (*i.e.*, properly abandoned) in 2009.

The EPA issued a ROD-Amendment in 2011 which changed the groundwater remediation from P/T to monitored natural attenuation (MNA) with in-situ source treatment of buried soil that is still contaminated. A gridded Geoprobe investigation with a membrane interface probe (MIP) in 2012 delineated several subareas with still-high soil-trichloroethylene (TCE). The largest of the high-TCE subareas was located below the former OECI facility building (razed in 1992). The remedial action that followed the MIP investigation was *in situ* soil mixing (ISSM) in July 2013 at depths that ranged from 5 to 18 ft at those subareas. Briefly, the ISSM utilized a Lang tool to mix the soil at depth with Daramend, a proprietary product with zero-valent iron in a soluble substrate designed to promote reductive TCE dechlorination. The initial post–ISSM groundwater samples occurred in November 2013.

Post ISSM, starting in October 2014, the DNR has assumed the financial responsibility for the oversight of the MNA long-term remedial action at the site. In March 2017, the 80' by 70' groundwater remediation building and its concrete foundation, together with existing site pavement (including driveway and parking), were demolished and removed from the site. The water supply well for the remediation building (cased to 105', and open to 201 ft depth) was filled and sealed (*i.e.*, properly abandoned) as part of demolition project. The area with the former remediation building was backfilled and regraded. Currently, the property is a vacant grassy lot with a few trees (Attachment 4).

Additional site information (status, 5-year reviews, etc.) is available at the EPA webpage for OECI site at: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0504986. Site information is also available at the DNR. Attachment 19 has 2 DNR webpages where complete site reports and groundwater monitoring data can be obtained.

In Closing

Please be aware that the DNR may impose additional conditions, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare or to the environment.

If you have any questions regarding the continuing obligations for this site, or anything outlined in this letter, please contact Resty Pelayo at (608)-267-3539, or at Aristeo.Pelayo@wisconsin.gov.

Sincerely,

Steve L. Martin
South Central Region Team Supervisor
Remediation & Redevelopment Program

Attachments: (Maps; if not map, info source in square brackets[])

- 1, OECI Site Location
- 2, Federal Tax Lien [Dodge County Info]
- 3, Dodge County Zoning
- 4, OECI Property in 2012 and 2017
- 5, Site Layout
- 6, OECI Soil-TCE (Trichloroethene) Contamination
- 7, Shallow Groundwater Flow and Groundwater TCE Isoconcentrations
- 8, Shallow Groundwater Flow and Groundwater VC Isoconcentrations
- 9, Mid-Depth Groundwater Flow and Groundwater TCE Isoconcentrations
- 10, Mid-Depth Groundwater Flow and Groundwater VC Isoconcentrations
- 11, Bedrock Groundwater Flow and Bedrock TCE
- 12, Bedrock Groundwater Flow and Bedrock VC
- 13, TCE trends from MWs, and VOC Trends from PWs [Info from DNR]
- 14, OECI Wells for DNR Monitoring
- 15, OECI and Surrounding Area Soils
- 16, Regional Bedrock Geology and Hydrology
- 17, Site Cross-Section [2004 RMT Report]
- 18, Site Cross-Section [2004 RMT Report]
- 19, Two WebPages with OECI Reports and Data [DNR Internet Pages]
- 20, Wells for Filling and Sealing (Proper Abandonment) If Found [List from DNR]
- 21, Five Year Review Report [U.S. EPA Reg. 5]

cc: Bill Ryan, U.S. EPA Region 5
Resty Pelayo, DNR Madison, RR/5
Dodge County Administrator

APPENDIX D

Groundwater Monitoring Well Analytical Results 2014 – 2018

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	12/10/2014	5/5/2015	11/03/2015	5/10/2016	11/3/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.97	0.71	0.46	0.00	0.01	3.30
Oxidation Reduction Potential	millivolts	--	--	38	72	69	38	-53	-43
pH	pH-units	--	--	7.33	6.80	7.09	6.95	7.13	7.36
Specific Conductivity	umhos/cm	--	--	1020	1400	1380	1110	986	895
Temperature	deg-C	--	--	9.32	8.08	17.22	9.95	9.92	16.12
Turbidity	ntu	--	--	0.	10.2	0.	9.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	340.	350.	380.	350.	350.	370.
Chloride (as Cl)	mg/L	250.	125.	240.	190.	230.	160.	150.	150.
Iron, total (unfiltered)	mg/L	--	--	0.473	0.183	<0.02 U	2.32	35 M	1.23
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.0673	0.406	0.406	0.532	0.945
Manganese, total (unfiltered)	µg/L	--	--	44.1	131.	76.7 Y,M	206.	124.	75.7
Manganese, dissolved (filtered)	µg/L	50.	25.	16.4	129.	97.2	196.	96.9	70.8
Acetylene	µg/L	--	--	<0.23 U	<0.23 UM,Y	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 UY	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	2.2	16 M	8.2	18.	5.7	2.1
Sulfate(as SO4)	mg/L	250.	125.	50.	50.	49.	53.	46.	50.
Total Organic Carbon	mg/L	--	--	1.4 J	1.2 J	1.7	1.8	1.4 J	2.6
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.15	0.31	0.11 J	0.24	0.095 J	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	5 B	5.1 B
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 UB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.1 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.030 U	0.062 J	<0.06 U	0.11 J	0.14 J	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.74 JB,Z	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.021 J	0.05 J	<0.03 U	0.061 J	0.15 J	0.15 J
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	11/30/2017	11/12/2018	12/10/2014	5/5/2015	11/03/2015	5/10/2016
	Units	NR140 ES	NR140 PAL	MW-1S	MW-1S	MW-1D	MW-1D	MW-1D	MW-1D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.79	10.96	0.00	1.26	0.27
Oxidation Reduction Potential	millivolts	--	--	15	-100	-155	-107	-133	-74
pH	pH-units	--	--	7.22	7.02	7.66	7.48	8.33	7.42
Specific Conductivity	umhos/cm	--	--	891	1089	505	638	531	613
Temperature	deg-C	--	--	17.87	10.68	10.67	9.52	15.81	11.39
Turbidity	ntu	--	--	0.	10.3	0.	6.	0.	1.6
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	410.	400.	350.	330.	370.	370.
Chloride (as Cl)	mg/L	250.	125.	220.	200.	7.8	5.9	5.8	5.6
Iron, total (unfiltered)	mg/L	--	--	1.17	2.12	3.14	2.15 M	3.14	1.67
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0924J	0.985	3.07	1.76	2.88	1.47
Manganese, total (unfiltered)	µg/L	--	--	111.	79.8	18.2	18.7	18.2	13.8
Manganese, dissolved (filtered)	µg/L	50.	25.	89.3	83.3	20.7	21.6	22.8	14.9
Acetylene	µg/L	--	--	<0.23U	<0.23 U	<0.23 UM	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40U	<0.80 U	0.75 J	<0.60 U	<0.9 U	<0.40 U
Ethene	µg/L	--	--	<0.50U	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U
Methane	µg/L	--	--	1.7	3.3	1500 M	560.	1900.	770.
Sulfate(as SO4)	mg/L	250.	125.	63.	33.	<1.0 U	<1.0 U	<1 U	0.55 J
Total Organic Carbon	mg/L	--	--	1.6J	0.8 J	<0.40 U	0.52 JY	0.46 J	1.2 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.024 U	<0.024 U	<0.06 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.024 U	<0.024 U	<0.07 U	<0.070 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.021 U	<0.021 U	<0.06 U	<0.060 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U
Acetone	µg/L	9000.	1800.	<0.30 U	<0.30 U	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.019 U	0.092	<0.06 U	<0.060 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.064 J	0.088 JB	<0.040 U	<0.05 U	<0.050 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	0.091	0.037 J	0.067 J	<0.060 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	0.13 J	<0.060 U	0.071 J	0.050 J
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	0.11 J	0.067 J	<0.12 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.04 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 UYQ	<0.15 U	<0.15 U	<0.06 U	<0.060 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	0.066 J	0.055 J	0.065 J	<0.050 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	0.033 J	0.029 J	<0.05 U	<0.050 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	0.19	0.092	0.19	0.089 J
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.70 U	<0.70 U	<0.6 U	<0.60 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	0.051 J	0.04 J	<0.06 U	<0.060 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Trichloroethene	µg/L	5.	0.5	<0.050 U	0.17	<0.020 U	<0.020 U	<0.03 U	<0.030 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	0.12	0.076	0.14	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/3/2016	5/10/2017	11/30/2017	12/12/2018	12/11/2014	5/6/2015
	Units	NR140 ES	NR140 PAL	MW-1D	MW-1D	MW-1D	MW-1D	MW-2D	MW-2D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.72	0.09	0.00	0.44	0.17	7.22
Oxidation Reduction Potential	millivolts	--	--	-144	-124	-116	-167	-100	68
pH	pH-units	--	--	7.48	7.54	8.27	7.31	7.39	7.36
Specific Conductivity	umhos/cm	--	--	562	0.504	511	613	1050	960
Temperature	deg-C	--	--	8.33	14.61	17.11	9.55	8.29	11.13
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.6
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	380.	380.	380.	390.	380.	350.
Chloride (as Cl)	mg/L	250.	125.	5.9	6.4	5.1	5.1	360.	180.
Iron, total (unfiltered)	mg/L	--	--	2.98	2.5	2.01	3.06	2.81	0.243
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.9	2.36	1.79	2.9	2.31	0.0235 J
Manganese, total (unfiltered)	µg/L	--	--	18.7	8.7J	5.8 J	17.1	21.9	6.1
Manganese, dissolved (filtered)	µg/L	50.	25.	18.	9.6	5.8 J	17.9	23.5	5.4
Acetylene	µg/L	--	--	<0.23 U	<0.23U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	0.6 J	<0.40U	<0.40 U	<0.80 U	<0.60 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50U	<0.50 U	<1.2 U	<0.90 U	<0.90 U
Methane	µg/L	--	--	110.	160.	170.	240.	180.	2.6
Sulfate(as SO4)	mg/L	250.	125.	<1.0 U	<1.0U	<1.0 U	1.3 J	48.	44.
Total Organic Carbon	mg/L	--	--	<0.50 U	<0.50U	2.	<0.40 U	2.1	0.61 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.030 U	<0.030 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	<0.060 U	0.24	0.18
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.060 U	<0.024 U	<0.024 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.12	<0.021 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.026 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.80 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.025 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U
Acetone	µg/L	9000.	1800.	<0.30 U	0.34 JB	<0.30 U	0.33 JB	<1.3 UZ	<1.3 UZ
Benzene	µg/L	5.	0.5	0.032 J	0.091	0.034J	0.06	<0.019 U	<0.019 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.080 U	<0.080 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.029 U	<0.029 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.040 U	<0.040 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.041 JB	<0.040 U	0.078 J	0.099 JB	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	0.43	0.13
Ethylbenzene	µg/L	700.	140.	0.066 J	0.04 J	<0.040 U	0.057 J	<0.019 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.070 U	<0.070 U
Isopropylbenzene	µg/L	--	--	0.078 J	0.043 J	0.041 J	0.078 J	<0.060 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	0.082 J	<0.070 U	<0.070 U	<0.070 U	<0.050 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.087 J	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 UYQ	<0.15 U	<0.15 U
Naphthalene	µg/L	100.	10.	0.043 J	0.044 J	<0.030 U	<0.030 U	<0.040 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.021 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.022 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U
Styrene	µg/L	100.	10.	0.17	0.078 J	0.076J	0.16	<0.020 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.030 U	<0.030 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.70 U	<0.70 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.044 J	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.056 J	0.022 J
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<0.60 U	<0.60 U
Vinyl chloride	µg/L	0.2	0.02	0.11	0.078	0.18	0.11	0.12	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/04/2015	5/18/2016	11/2/2016	5/10/2017	11/29/2017	11/9/2018
	Units	NR140 ES	NR140 PAL	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.46	0.00	0.33	3.56	0.00	0.43
Oxidation Reduction Potential	millivolts	--	--	-111	25	-90	165	-106	-116
pH	pH-units	--	--	7.80	7.03	7.22	7.36	7.81	7.11
Specific Conductivity	umhos/cm	--	--	782	1020	1140	1110	895	1108
Temperature	deg-C	--	--	21.16	12.13	6.77	10.56	16.34	9.98
Turbidity	ntu	--	--	2.8	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	380.	390.	390.	400.	400.	410.
Chloride (as Cl)	mg/L	250.	125.	180.	200.	180.	170.	230.	180.
Iron, total (unfiltered)	mg/L	--	--	2.6	0.423	1.69	0.485	1.94	1.44
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.52	0.34	1.6	0.147 J	1.83	1.52
Manganese, total (unfiltered)	µg/L	--	--	28.2	19.3	21.9	5.4 J	19.6	19.7
Manganese, dissolved (filtered)	µg/L	50.	25.	22.8	15.8	21.4	<2.2 U	21.2	21.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.9 U	<0.40 U	<0.40 U	<0.40 U	0.4 J	<0.80 U
Ethene	µg/L	--	--	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.2 U
Methane	µg/L	--	--	120.	68.	52.	7.	140.	18.
Sulfate(as SO4)	mg/L	250.	125.	40.	45.	39.	43.	48.	39.
Total Organic Carbon	mg/L	--	--	1.1 J	2.8 Y	1.7	3.2	1.1 J	0.98 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.22	0.13 J	0.18 J	0.15 J	0.15 J	0.15 J
1,1-Dichloroethene	µg/L	7.	0.7	<0.07 U	<0.070 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<7.0 U	9.7 J	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.8 U	<0.80 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<0.9 U	<0.90 U	<0.30 U	0.46 JB	<0.30 U	<0.30 U
Benzene	µg/L	5.	0.5	<0.06 U	<0.060 U	<0.018 U	<0.018 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.11 U	<0.11 U	0.073 J	<0.070 U	<0.070 U	0.07 J
Carbon tetrachloride	µg/L	5.	0.05	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.06 U	<0.060 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.05 U	0.13 J	0.07 J	0.044 JB	<0.040 U	0.12 J
cis-1,2-Dichloroethene	µg/L	70.	7.	0.44	0.24	0.35	0.17 J	0.38	0.33
Ethylbenzene	µg/L	700.	140.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.07 U	<0.070 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.12 U	<0.12 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.084 J	0.095 J	0.082 J	0.041 J	0.078 J	0.097 J
Methylene chloride	µg/L	5.	0.5	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.6 U	0.98 JB	0.7 JB	<0.40 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.15 J	<0.060 U	0.072 J	<0.040 U	0.04 J	0.05 J
Trichloroethene	µg/L	5.	0.5	0.05 J	<0.030 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.5 U	<0.50 U	<0.22 U	<0.22 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.11	<0.016 U	0.052 J	<0.019 U	<0.019 U	0.042 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	12/10/2014	5/7/2015	11/04/2015	5/18/2016	11/2/2016	5/12/2017
	Units	NR140 ES	NR140 PAL	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.96	0.64	0.19	0.44	1.31	2.32
Oxidation Reduction Potential	millivolts	--	--	-101	-87	-101	54	-62	114
pH	pH-units	--	--	7.76	6.65	7.62	7.08	7.22	7.34
Specific Conductivity	umhos/cm	--	--	951	930	861	970	1080	1010
Temperature	deg-C	--	--	8.31	12.42	13.78	11.98	6.14	12.44
Turbidity	ntu	--	--	0.	4.5	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	340.	320.	360.	360.	380.	380.
Chloride (as Cl)	mg/L	250.	125.	200.	200.	190.	190.	170.	170.
Iron, total (unfiltered)	mg/L	--	--	1.7	1.39	0.712	0.437	0.49	0.459
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.789	1.07	0.805	0.471	0.326	0.281
Manganese, total (unfiltered)	µg/L	--	--	45.	28.4 Y	40.3	45.3	50.4	8 J
Manganese, dissolved (filtered)	µg/L	50.	25.	29.7	26.5	36.4	37.7	50.2	4.5 J
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	33.	15.	27.	32.	18.	2.5
Sulfate(as SO4)	mg/L	250.	125.	44.	42.	41.	47.	42.	45.
Total Organic Carbon	mg/L	--	--	0.80 J	1.6	0.63 J	1.8	1.6 J	3.
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.57 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030	<0.06 U	<0.060 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	0.055 JB	<0.040 U	0.072 JB	0.14 J	0.048 J	0.099 J
cis-1,2-Dichloroethene	µg/L	70.	7.	0.13	0.19	0.18 J	0.35	0.3	0.17 J
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.27	0.21	0.35	0.38	0.28	0.13
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	0.49 JB	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	0.024 J	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/29/2017	11/12/2018	12/11/2014	5/7/2015	11/04/2015	5/10/2016
	Units	NR140 ES	NR140 PAL	MW-3D	MW-3D	MW-4S	MW-4S	MW-4S	MW-4S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.41	1.37	0.00	0.46	0.00
Oxidation Reduction Potential	millivolts	--	--	-51	-95	85	97	79	97
pH	pH-units	--	--	7.39	7.07	7.01	6.58	7.13	6.90
Specific Conductivity	umhos/cm	--	--	896	1114	4180	1730	1920	1580
Temperature	deg-C	--	--	15.88	10.36	8.54	10.07	18.02	9.41
Turbidity	ntu	--	--	0.	0.	2.56	0.3	0.	32.6
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	390.	390.	520.	740.	580.	740.
Chloride (as Cl)	mg/L	250.	125.	230.	190.	1000.	130.	400.	42.
Iron, total (unfiltered)	mg/L	--	--	0.299	0.191	0.236	0.142	0.361	0.556
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.211	0.159 J	0.0474	0.0633	0.0178 J	0.501
Manganese, total (unfiltered)	µg/L	--	--	46.5	61.2	176.	39.6	73.5	97.2
Manganese, dissolved (filtered)	µg/L	50.	25.	51.	62.4	193.	39.8	58.3	111.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.80 U	<0.60 U	<0.60 U	<0.9 U	<0.40 U
Ethene	µg/L	--	--	<0.50 U	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U
Methane	µg/L	--	--	9.5	6.5	1.1	0.36 J	0.53 J	20.
Sulfate(as SO4)	mg/L	250.	125.	51.	41.	99.	220.	97.	100.
Total Organic Carbon	mg/L	--	--	1.2 J	1 J	5.3	9.7	3.6	10.
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.024 U	<0.024 U	<0.06 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.024 U	<0.024 U	<0.07 U	<0.070 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	0.094	<0.021 U	<0.06 U	<0.060 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U
Acetone	µg/L	9000.	1800.	<0.30 U	0.48 JB	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030	<0.06 U	<0.060 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.083 J	0.089 JB	<0.040 U	0.058 J	<0.050 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.76	0.72	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	0.47	0.54	<0.040 U	<0.040 U	<0.04 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 UYQ	<0.15 U	<0.15 U	<0.06 U	<0.060 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.70 U	<0.70 U	<0.6 U	0.66 JB,Z
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.020 U	<0.020 U	<0.03 U	<0.030 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	0.025 J	<0.019 U	<0.019 U	<0.016 U	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/2/2016	5/11/2017	11/29/2017	11/9/2018	12/10/2014	5/5/2015
	Units	NR140 ES	NR140 PAL	MW-4S	MW-4S	MW-4S	MW-4S	MW-5D	MW-5D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.86	0.49	0.00	0.63	3.32	0.00
Oxidation Reduction Potential	millivolts	--	--	11	246	90	44	-78	-38
pH	pH-units	--	--	6.71	6.90	6.88	6.93	7.60	7.32
Specific Conductivity	umhos/cm	--	--	2020	1140	1110	1197	999	1240
Temperature	deg-C	--	--	8.31	11.69	16.27	9.44	7.83	9.22
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	23.7
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	530.	600.	660.	380.	390.	370.
Chloride (as Cl)	mg/L	250.	125.	300 M	150.	190.	270.	180.	160.
Iron, total (unfiltered)	mg/L	--	--	0.474	0.242	0.0729 J	1.01	1.61	1.53
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	0.146 J	<0.059 U	<0.059 U	1.51	0.989
Manganese, total (unfiltered)	µg/L	--	--	65.6	151.	228.	103.	68.7	137.
Manganese, dissolved (filtered)	µg/L	50.	25.	64.1	149.	225.	10.7	67.7	68.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 UM	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 UM	<0.80 U	<0.60 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<1.2 U	<0.90 U	<0.90 U
Methane	µg/L	--	--	1.1 J	3.1	0.7 J	<0.40 U	41.	26.
Sulfate(as SO4)	mg/L	250.	125.	85 M	69.	72.	54.	57.	51.
Total Organic Carbon	mg/L	--	--	4.8	7.7	4.5	2.2	0.95 J	1.3 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U	<0.15 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U	<0.15 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	<0.060 U	6.1	6.8
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.060 U	0.51	0.69
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U	<0.15 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.12 U	<0.12 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.13 U	<0.13 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.91	0.56
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.11 U	<0.11 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.11 U	<0.11 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.13 U	<0.13 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.11 U	<0.11 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<4.0 U	<4.0 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.13 U	<0.13 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U	<0.15 U
Acetone	µg/L	9000.	1800.	<0.30 U	0.53 JB	<0.30 U	0.45 JB	<6.5 UZ	<6.5 UZ
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.018 U	<0.018 U	<0.095 U	<0.095 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.40 U	<0.40 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U	<0.15 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.12 U	<0.12 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.20 U	<0.20 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.15 U	<0.15 U
Chloromethane	µg/L	30.	3.	0.079 J	0.043 J	<0.040 U	0.08 J	<0.20 U	<0.20 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	72.	73.
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.095 U	<0.095 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.35 U	<0.35 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.30 U	<0.30 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.25 U	<0.25 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.20 U	<0.20 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	4.2	<0.75 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.20 U	<0.20 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.11 U	<0.11 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.11 U	<0.11 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.14 U	<0.14 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U	<0.15 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.10 U	<0.10 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.13 U	<0.13 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U	<0.15 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<3.5 U	<3.5 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.14 U	<0.14 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	7.	9.
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	32.	50.
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<3.0 U	<3.0 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.019 U	3.2	4.3

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/03/2015	5/11/2016	11/3/2016	5/12/2017	11/29/2017	11/12/2018
	Units	NR140 ES	NR140 PAL	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.59	0.01	0.15	0.13	0.00	0.40
Oxidation Reduction Potential	millivolts	--	--	-65	-40	-81	-42	-85	-101
pH	pH-units	--	--	7.45	7.13	7.21	7.28	7.31	7.05
Specific Conductivity	umhos/cm	--	--	895	1090	1070	1040	820	1040
Temperature	deg-C	--	--	18.15	13.76	6.47	11.10	16.32	10.07
Turbidity	ntu	--	--	9.4	25.1	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	400.	400.	410.	420.	430.	430.
Chloride (as Cl)	mg/L	250.	125.	140.	150.	140.	140.	160.	140.
Iron, total (unfiltered)	mg/L	--	--	1.6	2.05	2.11	1.67	1.84	1.81
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.69	0.865	1.83	1.46	1.58	1.59
Manganese, total (unfiltered)	µg/L	--	--	61.9	116.	70.2	57.7	62.3	70.9
Manganese, dissolved (filtered)	µg/L	50.	25.	65.7	116.	71.1	50.	64.8	72.3
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.80 U
Ethene	µg/L	--	--	<1.2 U	0.55 J	<0.50 U	<0.50 U	<0.50 U	<1.2 U
Methane	µg/L	--	--	44.	44.	38 M	2.4	4.9	4.4
Sulfate(as SO4)	mg/L	250.	125.	50.	52.	47.	50.	59.	48.
Total Organic Carbon	mg/L	--	--	0.65 J	2.6	1.5 J	2.8	1 J	1 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,1-Dichloroethane	µg/L	850.	85.	4.4	7.6	6.7	8.6	6.8	6.8
1,1-Dichloroethene	µg/L	7.	0.7	0.35 J	0.74 J	0.69 J	0.93 J	0.69 J	0.64 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.2 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2-Dichloroethane	µg/L	5.	0.5	1.3	0.53 J	0.39 J	0.26 J	0.43 J	0.38 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<35 U	<35 U	<35 U	<35 U
2,2-Dichloropropane	µg/L	--	--	<0.2 U	<0.20 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
2-Butanone (MEK)	µg/L	4000.	800.	<4 U	<4.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	µg/L	--	--	<0.3 U	<0.30 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
4-Chlorotoluene	µg/L	--	--	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Acetone	µg/L	9000.	1800.	<4.5 U	98 B	<1.5 U	5.6 B	4.6 JB	2.1 JB
Benzene	µg/L	5.	0.5	<0.3 U	<0.30 U	<0.090 U	<0.090 U	<0.090 U	<0.090 U
Carbon disulfide	µg/L	1000.	200.	<0.55 U	<0.55 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U
Carbon tetrachloride	µg/L	5.	0.05	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Chlorobenzene	µg/L	--	--	<0.2 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Chloroethane	µg/L	400.	80.	<0.3 U	<0.30 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U
Chloroform	µg/L	6.	0.6	<0.3 U	<0.30 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
Chloromethane	µg/L	30.	3.	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	0.93
cis-1,2-Dichloroethene	µg/L	70.	7.	51.	76.	67.	78.	81.	76.
Ethylbenzene	µg/L	700.	140.	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Hexachlorobutadiene	µg/L	--	--	<0.35 U	<0.35 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Isopropylbenzene	µg/L	--	--	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
m & p-Xylene	µg/L	2000.	400.	<0.6 U	<0.60 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U
Methyl tert-butyl ether	µg/L	60.	12.	0.21 J	0.27 J	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Methylene chloride	µg/L	5.	0.5	<0.3 U	1.5	<0.25 U	1.9	<0.25 U	<0.25 UYQ
Naphthalene	µg/L	100.	10.	<0.25 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
n-Butylbenzene	µg/L	--	--	<0.25 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
n-Propylbenzene	µg/L	--	--	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
o-Xylene	µg/L	2000.	400.	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
p-Isopropyltoluene	µg/L	--	--	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
sec-Butylbenzene	µg/L	--	--	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Styrene	µg/L	100.	10.	<0.25 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
tert-Butylbenzene	µg/L	--	--	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Tetrachloroethene	µg/L	5.	0.05	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Tetrahydrofuran	µg/L	50.	10.	<3 U	<3.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Toluene	µg/L	800.	160.	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
trans-1,2-Dichloroethene	µg/L	100.	20.	5.1	9.4	9.2	10.	9.6	11.
Trichloroethene	µg/L	5.	0.5	15.	54.	50.	78.	41.	38.
Vinyl acetate	µg/L	--	--	<2.5 U	<2.5 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
Vinyl chloride	µg/L	0.2	0.02	2.3	4.7	3.4	3.1	3.1	6.9

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/12/2018	12/10/2014	5/5/2015	11/03/2015	5/11/2016	11/3/2016
	Units	NR140 ES	NR140 PAL	MW-5D Dup	MW-9S	MW-9S	MW-9S	MW-9S	MW-9S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.44	0.79	0.00	0.43	0.00	0.14
Oxidation Reduction Potential	millivolts	--	--	-98	14	-48	-37	-35	-61
pH	pH-units	--	--	7.05	7.75	7.20	7.41	7.10	7.23
Specific Conductivity	umhos/cm	--	--	1041	1230	1870	1680	1490	1400
Temperature	deg-C	--	--	9.92	10.08	8.63	17.35	15.13	7.32
Turbidity	ntu	--	--	0.	0.	12.4	0.	13.6	1.3
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	430.	330.	300.	340.	350.	360.
Chloride (as Cl)	mg/L	250.	125.	140.	380.	360.	340.	310.	260.
Iron, total (unfiltered)	mg/L	--	--	1.74	0.635	2.	0.495	2.94	1.36
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.25	0.221	1.	0.59	0.877	0.641
Manganese, total (unfiltered)	µg/L	--	--	71.1	57.1	80.5	73.7	73.5	71.8
Manganese, dissolved (filtered)	µg/L	50.	25.	86.9	79.1	88.4	82.2	70.6	73.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 UY	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<1.2 UY	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	5.4 MY	4.3	5.5	6.3	21.	18.
Sulfate(as SO4)	mg/L	250.	125.	46.	64.	57.	56.	59.	56.
Total Organic Carbon	mg/L	--	--	0.99 J	1.4 J	1.6	1.2 J	2.8	1.8
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.20 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.25 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	6.7	0.19	0.17	0.2	0.16 J	0.15 J
1,1-Dichloroethene	µg/L	7.	0.7	0.63 J	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.20 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.20 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.20 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.20 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	0.46 J	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.25 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.20 U	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.20 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<35 U	NA	NA	NA	NA	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.25 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<2.5 U	<0.80 UY	<0.80 U	<0.8 U	<0.80 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.15 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.20 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U
Acetone	µg/L	9000.	1800.	1.6 JB	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U
Benzene	µg/L	5.	0.5	<0.090 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.35 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.25 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.20 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.35 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.15 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.20 U	0.1 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	75.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.20 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.25 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.20 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.35 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.21 J	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.25 UYQ	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.15 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.15 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.20 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.20 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.20 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.25 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.15 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.20 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.25 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<2.0 U	<0.70 UY	<0.70 U	<0.6 U	<0.60 U	<0.40 U
Toluene	µg/L	800.	160.	<0.20 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	10.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	37.	0.15	0.18	0.24	0.18	0.17
Vinyl acetate	µg/L	--	--	<1.1 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	6.6	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/12/2017	11/29/2017	11/29/2017	11/15/2018	12/11/2014
	Units	NR140 ES	NR140 PAL	MW-9S	MW-9S	MW-9S DUP	MW-9S	MW-12S
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	0.01	0.00	0.00	0.61	8.69
Oxidation Reduction Potential	millivolts	--	--	-36	-34	-37	-59	-50
pH	pH-units	--	--	7.23	7.17	7.18	6.90	7.80
Specific Conductivity	umhos/cm	--	--	1120	923	923	1210	1070
Temperature	deg-C	--	--	13.36	17.58	17.65	12.21	6.75
Turbidity	ntu	--	--	0.	0.	0.	7.1	42.7
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	380.	380.	380.	390.	370.
Chloride (as Cl)	mg/L	250.	125.	210.	240.	250.	250.	220.
Iron, total (unfiltered)	mg/L	--	--	2.63	0.643	0.622	6.26	0.49
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.8	0.403	0.391	0.533	0.077
Manganese, total (unfiltered)	µg/L	--	--	147.	58.3	61.4	87.	127.
Manganese, dissolved (filtered)	µg/L	50.	25.	123.	66.6	61.5	87.6	115.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.80 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<1.2 U	<0.90 U
Methane	µg/L	--	--	2.2	3.7	1.7	0.72 J	11.
Sulfate(as SO4)	mg/L	250.	125.	52.	54.	55.	32.	55.
Total Organic Carbon	mg/L	--	--	3.2	1.2 J	1 J	2.3	2.5
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	51.
1,1-Dichloroethane	µg/L	850.	85.	0.17 J	0.15 J	0.15 J	0.13 J	14.
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.060 U	5.7
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.12 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.13 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.12 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.11 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.11 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.13 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.11 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<4.0 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.13 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U
Acetone	µg/L	9000.	1800.	0.37 JB	0.48 JB	<0.30 U	0.7 JB	<6.5 UZ
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.018 U	<0.018 U	<0.095 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.40 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.12 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.20 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.15 U
Chloromethane	µg/L	30.	3.	0.062 J	<0.040 U	<0.040 U	0.11 J	<0.20 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	49.
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.095 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.35 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.30 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.25 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.20 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 UZYQ	1.3 J
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.20 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.11 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.11 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.14 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.15 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.12 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.10 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.13 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<3.5 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.14 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	9.5
Trichloroethene	µg/L	5.	0.5	0.16 J	0.18	0.19	0.18	39.
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<3.0 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.019 U	1.7

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/6/2015	11/05/2015	5/11/2016	11/1/2016	5/9/2017	11/29/2017
	Units	NR140 ES	NR140 PAL	MW-12S	MW-12S	MW-12S	MW-12S	MW-12S	MW-12S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	1.12	0.00	0.00	1.05	0.00
Oxidation Reduction Potential	millivolts	--	--	16	-21	30	24	55	-27
pH	pH-units	--	--	7.32	6.99	7.14	6.90	7.45	7.16
Specific Conductivity	umhos/cm	--	--	1050	920	1230	1020	1620	944
Temperature	deg-C	--	--	7.11	14.00	12.03	12.18	7.65	15.42
Turbidity	ntu	--	--	18.2	36.3	12.	0.	26.2	26.2
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	350.	380.	380.	390.	410.	410.
Chloride (as Cl)	mg/L	250.	125.	210.	180.	220.	230.	210.	250.
Iron, total (unfiltered)	mg/L	--	--	0.266	1.19	0.172	0.139	0.0994 J	0.0889 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.109	<0.010 U	<0.059 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	132.	165.	117.	137.	118.	111.
Manganese, dissolved (filtered)	µg/L	50.	25.	117.	132.	104.	139.	67.1	121.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 UY	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	9.4	7.5	18.	6.9 M	1.2	1.3
Sulfate(as SO4)	mg/L	250.	125.	54.	51.	59.	50.	49.	53.
Total Organic Carbon	mg/L	--	--	1.8	0.89 J	3.2	2.4	3.	2.
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.15 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
1,1,1-Trichloroethane	µg/L	200.	40.	41.	36.	29.	32.	35.	27.
1,1-Dichloroethane	µg/L	850.	85.	18.	6.6	12.	14.	13.	6.7
1,1-Dichloroethene	µg/L	7.	0.7	7.2	3.	4.4	5.1	5.2	2.5
1,2,3-Trichlorobenzene	µg/L	--	--	<0.20 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.15 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.12 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.13 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.12 U	<0.2 U	<0.20 U	<0.25 U	<0.25 U	<0.25 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.11 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.11 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.13 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	<35 U	<35 U	<35 U
2,2-Dichloropropane	µg/L	--	--	<0.11 U	<0.2 U	<0.20 U	<0.25 U	<0.25 U	<0.25 U
2-Butanone (MEK)	µg/L	4000.	800.	<4.0 U	<4 U	<4.0 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	µg/L	--	--	<0.13 U	<0.3 U	<0.30 U	<0.15 U	<0.15 U	<0.15 U
4-Chlorotoluene	µg/L	--	--	<0.15 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
Acetone	µg/L	9000.	1800.	<6.5 UZ	<4.5 U	100 B	2.4 JB	4.8 JB	4.2 JB
Benzene	µg/L	5.	0.5	<0.095 U	<0.3 U	<0.30 U	0.098 J	<0.090 U	<0.090 U
Carbon disulfide	µg/L	1000.	200.	<0.40 U	<0.55 U	<0.55 U	<0.35 U	<0.35 U	<0.35 U
Carbon tetrachloride	µg/L	5.	0.05	<0.15 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U
Chlorobenzene	µg/L	--	--	<0.12 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Chloroethane	µg/L	400.	80.	<0.20 U	<0.3 U	<0.30 U	<0.35 U	<0.35 U	<0.35 U
Chloroform	µg/L	6.	0.6	<0.15 U	<0.3 U	<0.30 U	<0.15 U	<0.15 U	<0.15 U
Chloromethane	µg/L	30.	3.	<0.20 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
cis-1,2-Dichloroethene	µg/L	70.	7.	16.	24.	22.	20.	26.	19.
Ethylbenzene	µg/L	700.	140.	<0.095 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U
Hexachlorobutadiene	µg/L	--	--	<0.35 U	<0.35 U	<0.35 U	<0.25 U	<0.25 U	<0.25 U
Isopropylbenzene	µg/L	--	--	<0.30 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
m & p-Xylene	µg/L	2000.	400.	<0.25 U	<0.6 U	<0.60 U	<0.35 U	<0.35 U	<0.35 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.20 U	<0.2 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Methylene chloride	µg/L	5.	0.5	<0.75 U	<0.3 U	1.4	1.5	2.7	<0.25 U
Naphthalene	µg/L	100.	10.	<0.20 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U
n-Butylbenzene	µg/L	--	--	<0.11 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U
n-Propylbenzene	µg/L	--	--	<0.11 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
o-Xylene	µg/L	2000.	400.	<0.14 U	<0.25 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U
p-Isopropyltoluene	µg/L	--	--	<0.15 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U
sec-Butylbenzene	µg/L	--	--	<0.12 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Styrene	µg/L	100.	10.	<0.10 U	<0.25 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U
tert-Butylbenzene	µg/L	--	--	<0.13 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U
Tetrachloroethene	µg/L	5.	0.05	<0.15 U	<0.3 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U
Tetrahydrofuran	µg/L	50.	10.	<3.5 U	<3.0 U	<3.0 U	<2.0 U	<2.0 U	<2.0 U
Toluene	µg/L	800.	160.	<0.14 U	<0.3 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U
trans-1,2-Dichloroethene	µg/L	100.	20.	10.	7.1	6.8	7.	6.8	5.1
Trichloroethene	µg/L	5.	0.5	72.	54.	48.	61.	64.	51.
Vinyl acetate	µg/L	--	--	<3.0 U	<2.5 U	<2.5 U	<1.1 U	<1.1 U	<1.1 U
Vinyl chloride	µg/L	0.2	0.02	0.39	1.9	0.79	0.57	0.52	2.2

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/8/2018	12/11/2014	5/6/2015	11/05/2015	5/11/2016	11/1/2016
	Units	NR140 ES	NR140 PAL	MW-12S	MW-12D	MW-12D	MW-12D	MW-12D	MW-12D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.74	6.46	0.00	4.79	0.00	0.39
Oxidation Reduction Potential	millivolts	--	--	-38	-82	-70	-88	49	-92
pH	pH-units	--	--	7.07	7.53	7.31	7.00	7.26	6.98
Specific Conductivity	umhos/cm	--	--	1121	1200	1060	974	1190	1150
Temperature	deg-C	--	--	10.25	7.90	8.68	15.02	16.52	9.37
Turbidity	ntu	--	--	101.	0.	1.4	2.2	0.3	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	400.	390.	370.	410.	400.	410.
Chloride (as Cl)	mg/L	250.	125.	170.	260 M	210.	200.	220.	200.
Iron, total (unfiltered)	mg/L	--	--	0.797 Y	1.26	0.967	1.35	0.906	2.53
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	0.969	0.843	1.13	0.873	0.919
Manganese, total (unfiltered)	µg/L	--	--	142.	29.7	31.9	39.	29.5	40.3
Manganese, dissolved (filtered)	µg/L	50.	25.	119.	33.1	29.9	32.7	29.1	35.5
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.46 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 U	<0.60 U	<1.2 U	<0.9 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<1.2 U	<0.90 U	<1.8 U	<1.2 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	2.2	36.	27.	27.	32.	2.9
Sulfate(as SO4)	mg/L	250.	125.	37.	67.	60.	59.	58.	51.
Total Organic Carbon	mg/L	--	--	1.6	3.1	2.	1.7	3.	2.4
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.20 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	29.	0.76	0.53	0.57	0.33	0.3
1,1-Dichloroethane	µg/L	850.	85.	9.8	10.	7.4	9.2	5.8	4.8
1,1-Dichloroethene	µg/L	7.	0.7	3.1	0.46	0.28	0.41	0.18 J	0.15 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.20 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.20 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.20 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.20 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.25 U	0.061 J	0.052 J	0.062 J	<0.040 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.25 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.20 U	0.084	0.038 J	<0.06 U	<0.060 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.20 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<35 U	NA	NA	NA	NA	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.25 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<2.5 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.15 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.20 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U
Acetone	µg/L	9000.	1800.	4.2 JB	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U
Benzene	µg/L	5.	0.5	0.11 J	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.35 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.25 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.20 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.35 U	0.073 J	0.12 J	0.35	0.53	<0.070 U
Chloroform	µg/L	6.	0.6	<0.15 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U
Chloromethane	µg/L	30.	3.	0.24 J	0.078 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	36.	6.9	5.7	6.7	5.4	5.3
Ethylbenzene	µg/L	700.	140.	<0.20 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.25 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.20 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.35 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.20 U	0.41	0.48	0.47	0.59	0.58
Methylene chloride	µg/L	5.	0.5	<0.25 U	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.15 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.15 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.20 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.20 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.20 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.25 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.15 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.20 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.25 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<2.0 U	<0.70 U	<0.70 U	<0.6 U	0.68 JB,Z	<0.40 U
Toluene	µg/L	800.	160.	<0.20 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	5.3	0.82	0.76	0.76	0.5	0.44
Trichloroethene	µg/L	5.	0.5	45.	0.11	0.12	0.11	0.1	0.1 J
Vinyl acetate	µg/L	--	--	<1.1 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	0.56	0.69	0.55	0.91	0.8	0.62

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	5/9/2017	11/29/2017	11/7/2018	12/11/2014	5/6/2015	11/05/2015
	Units	NR140 ES	NR140 PAL	MW-12D	MW-12D	MW-12D	MW-12B	MW-12B	MW-12B
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.22	0.00	0.63	0.40	2.03	0.22
Oxidation Reduction Potential	millivolts	--	--	-34	-78	-90	-153	51	-179
pH	pH-units	--	--	7.44	7.45	7.14	8.58	8.54	7.79
Specific Conductivity	umhos/cm	--	--	1370	998	1077	804	712	650
Temperature	deg-C	--	--	9.62	14.94	10.01	7.55	10.02	16.61
Turbidity	ntu	--	--	0.	0.	24.7	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	410.	430.	410.	280.	270.	320.
Chloride (as Cl)	mg/L	250.	125.	180.	270.	200.	150.	130.	130.
Iron, total (unfiltered)	mg/L	--	--	1.22	1.07	4.72	0.229	0.042 J	0.355
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.906	1.02	1.07	0.149	<0.010 U	0.32
Manganese, total (unfiltered)	µg/L	--	--	30.3	31.	41.5	3.5 J	1.9 J	17.7
Manganese, dissolved (filtered)	µg/L	50.	25.	<2.2 U	33.4	39.	6.5	<1.6 U	12.9
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.80	<0.60 U	<0.60 U	<0.9 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<1.2	<0.90 U	<0.90 U	<1.2 U
Methane	µg/L	--	--	1.7	3.3	9.1	8.4	0.31 J	15.
Sulfate(as SO4)	mg/L	250.	125.	54.	65.	52.	31.	29.	29.
Total Organic Carbon	mg/L	--	--	2.9	1.9	2.1	0.86 J	0.47 J	<0.4 U
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.05 U
1,1,1-Trichloroethane	µg/L	200.	40.	0.29	0.3	0.19	<0.030 U	<0.030 U	<0.06 U
1,1-Dichloroethane	µg/L	850.	85.	4.6	5.1	3.2	<0.024 U	<0.024 U	<0.06 U
1,1-Dichloroethene	µg/L	7.	0.7	0.12 J	0.14 J	0.098 J	<0.024 U	<0.024 U	<0.07 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.05 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.04 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.05 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.04 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.06 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	0.12	0.038 J	<0.06 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.026 U	<0.026 U	<0.05 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 UM	<0.050 U	<0.022 U	<0.022 U	<0.04 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.80 U	<0.80 U	<0.8 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.025 U	<0.025 U	<0.06 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.05 U
Acetone	µg/L	9000.	1800.	0.57 JB	<0.30 U	0.38 JB	<1.3 UZ	<1.3 UZ	<0.9 U
Benzene	µg/L	5.	0.5	<0.018 U	0.018 J	<0.018 U	<0.019 U	<0.019 U	<0.06 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.080 U	<0.080 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.029 U	<0.029 U	<0.06 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.04 U
Chloroethane	µg/L	400.	80.	0.29	0.59	0.25	<0.040 U	<0.040 U	<0.06 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.06 U
Chloromethane	µg/L	30.	3.	0.091 JB	<0.040 U	0.21	0.1 JB	<0.040 U	<0.05 U
cis-1,2-Dichloroethene	µg/L	70.	7.	6.3	6.4	5.8	<0.030 U	<0.030 U	<0.06 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.019 U	<0.019 U	<0.06 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.070 U	<0.070 U	<0.07 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.060 U	<0.060 U	<0.05 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.050 U	<0.050 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	0.64	0.58	0.69	<0.040 U	<0.040 U	<0.04 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.15 U	<0.15 U	<0.06 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.040 U	<0.040 U	<0.05 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.021 U	<0.021 U	<0.05 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.022 U	<0.022 U	<0.05 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.05 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.06 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.05 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.020 U	<0.020 U	<0.05 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	0.065 J	<0.030 U	<0.06 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.70 U	<0.70 U	<0.6 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.06 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.4	0.43	0.28	<0.040 U	<0.040 U	<0.06 U
Trichloroethene	µg/L	5.	0.5	0.11 J	0.11 J	0.099 J	0.022 J	<0.020 U	<0.03 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.60 U	<0.60 U	<0.5 U
Vinyl chloride	µg/L	0.2	0.02	0.79	0.77	0.85	<0.019 U	<0.019 U	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/11/2016	11/1/2016	5/9/2017	11/29/2017	11/8/2018	12/11/2014
	Units	NR140 ES	NR140 PAL	MW-12B	MW-12B	MW-12B	MW-12B	MW-12B	MW-13S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.93	0.79	0.70	0.00	0.37	10.09
Oxidation Reduction Potential	millivolts	--	--	163	-190	-75	47	-164	4
pH	pH-units	--	--	8.39	7.77	8.27	7.60	7.71	7.61
Specific Conductivity	umhos/cm	--	--	910	879	1040	528	982	865
Temperature	deg-C	--	--	12.46	9.29	10.84	13.55	9.63	5.48
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	113.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	310.	340.	340.	360.	360.	310.
Chloride (as Cl)	mg/L	250.	125.	140.	140.	140.	180.	140.	170.
Iron, total (unfiltered)	mg/L	--	--	<0.020 U	0.394	0.268	0.362	0.209	2.74
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.385	0.226	0.347	0.167 J	0.0768
Manganese, total (unfiltered)	µg/L	--	--	1.4 J	19.5	12.2	22.1	17.8	45.3
Manganese, dissolved (filtered)	µg/L	50.	25.	<1.6 U	20.6	<2.2 U	23.	18.9	13.9
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.80 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.2 U	<0.90 U
Methane	µg/L	--	--	3.	12.	2.2	13.	17.	0.3 J
Sulfate(as SO4)	mg/L	250.	125.	30.	30.	30.	33.	27.	18.
Total Organic Carbon	mg/L	--	--	0.75 J	1 J	1.2 J	<0.50 U	0.44 J	6.7
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.063 J
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U	0.057 J
1,1-Dichloroethene	µg/L	7.	0.7	<0.070 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U	<0.024 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.14
1,4-Dichlorobenzene	µg/L	75.	15.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	NA	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA
2,2-Dichloropropane	µg/L	--	--	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U
Acetone	µg/L	9000.	1800.	<0.90 U	<0.30 U	0.39 JB	<0.30 U	0.64 JB	<1.3 UZ
Benzene	µg/L	5.	0.5	<0.060 U	<0.018 U	<0.018 U	<0.018 U	<0.018 U	<0.019 U
Carbon disulfide	µg/L	1000.	200.	<0.11 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.080 U
Carbon tetrachloride	µg/L	5.	0.05	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.029 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U
Chloroethane	µg/L	400.	80.	<0.060 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.040 U
Chloroform	µg/L	6.	0.6	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.050 U	<0.040 U	0.063 JB	<0.040 U	0.16	0.082 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.060 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	0.045 J
Ethylbenzene	µg/L	700.	140.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	<0.12 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U
Naphthalene	µg/L	100.	10.	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U
Styrene	µg/L	100.	10.	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.035 J
Tetrahydrofuran	µg/L	50.	10.	<0.60 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.70 U
Toluene	µg/L	800.	160.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.030 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.11
Vinyl acetate	µg/L	--	--	<0.50 U	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<0.60 U
Vinyl chloride	µg/L	0.2	0.02	<0.016 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	5/6/2015	11/05/2015	5/13/2016	11/1/2016	5/9/2017	11/29/2017
	Units	NR140 ES	NR140 PAL	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	5.81	1.87	3.78	4.08	4.41	0.02
Oxidation Reduction Potential	millivolts	--	--	91	22	130	126	203	-14
pH	pH-units	--	--	7.52	7.08	7.35	6.74	7.51	7.12
Specific Conductivity	umhos/cm	--	--	599	706	832	755	1090	692
Temperature	deg-C	--	--	10.34	14.19	12.29	12.90	11.62	16.09
Turbidity	ntu	--	--	11.3	9.	30.2	0.	62.	62.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	260.	320.	310.	330.	350.	360.
Chloride (as Cl)	mg/L	250.	125.	70.	140.	120.	130.	150.	130.
Iron, total (unfiltered)	mg/L	--	--	0.688	0.734	2.	5.16	9.04	0.576
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.111	0.0982	0.118 J	0.128 J	0.191 J
Manganese, total (unfiltered)	µg/L	--	--	7.8	24.8	28.3	62.	36800.	20.4
Manganese, dissolved (filtered)	µg/L	50.	25.	7.8	13.4	10.	13.9	<2.2 U	20.7
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	<0.30 U	<0.4 U	<0.40 U	0.43 J	<0.40 U	0.4 J
Sulfate(as SO4)	mg/L	250.	125.	13.	16.	17.	17.	23.	24.
Total Organic Carbon	mg/L	--	--	2.3	<0.4 U	2.9	1.6 J	2.6	1.4 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	0.033 J	0.1 J	<0.060 U	0.11 J	0.051 J	0.067 J
1,1-Dichloroethane	µg/L	850.	85.	0.056 J	<0.06 U	<0.060 U	0.072 J	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.03 J	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	<7.0 U	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.52 JB	<0.30 U
Benzene	µg/L	5.	0.5	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.11 U	<0.11 U	<0.070 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.14 B	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.13	0.16 J	<0.060 U	0.25	1.	2.1
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	0.032 J	0.064 J	<0.060 U	0.097 J	0.054 J	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	0.05 J
Trichloroethene	µg/L	5.	0.5	0.037 J	0.13	0.051 J	0.18	<0.050 U	0.099 J
Vinyl acetate	µg/L	--	--	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/8/2018	12/11/2014	5/6/2015	11/05/2015	5/13/2016	11/1/2016
	Units	NR140 ES	NR140 PAL	MW-13S	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	3.70	2.21	0.00	0.20	0.00	0.19
Oxidation Reduction Potential	millivolts	--	--	-46	-72	-62	-74	-56	-83
pH	pH-units	--	--	7.19	7.57	7.42	7.02	7.20	7.05
Specific Conductivity	umhos/cm	--	--	991	1070	967	908	1140	1070
Temperature	deg-C	--	--	10.55	7.53	11.59	14.52	11.41	8.58
Turbidity	ntu	--	--	9.4	0.	0.1	2.4	116.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	350.	350.	340.	380.	360.	380.
Chloride (as Cl)	mg/L	250.	125.	160.	230.	190.	180.	190.	170.
Iron, total (unfiltered)	mg/L	--	--	17.6	1.79	0.772	1.21	28.5	1.42
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0715 J	0.898	0.67	0.801	0.814	0.753
Manganese, total (unfiltered)	µg/L	--	--	233.	31.7	31.8	38.6	3.62	33.
Manganese, dissolved (filtered)	µg/L	50.	25.	16.5	31.9	27.	34.3	29.7	31.9
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 U	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	<0.40 U	21.	18.	20.	28.	24.
Sulfate(as SO4)	mg/L	250.	125.	21.	64.	52.	50.	49.	46.
Total Organic Carbon	mg/L	--	--	2.5	9.5	2.	0.45 J	1.8	1.6 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	0.14	<0.021 U	<0.06 U	<0.060 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	NA	NA	NA	NA	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U
Acetone	µg/L	9000.	1800.	0.61 JB	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U
Chloroform	µg/L	6.	0.6	1.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U
Chloromethane	µg/L	30.	3.	0.15	0.087 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.41	1.5	1.4	1.7	1.6	1.7
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	0.44	0.45	0.49	0.53	0.52
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U
Toluene	µg/L	800.	160.	<0.040 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	0.055 J	0.07 J	<0.06 U	<0.060 U	0.064 J
Trichloroethene	µg/L	5.	0.5	0.18	0.032 J	0.022 J	0.045 J	<0.030 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	0.043 J	0.044 J	0.052	0.046 J	0.035 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	5/9/2017	11/29/2017	11/8/2018	12/8/2014	5/7/2015	11/06/2015
	Units	NR140 ES	NR140 PAL	MW-13D	MW-13D	MW-13D	MW-15S	MW-15S	MW-15S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.65	0.00	0.69	3.68	7.63	2.14
Oxidation Reduction Potential	millivolts	--	--	-37	-73	-92	43	77	20
pH	pH-units	--	--	7.55	7.38	7.18	7.44	7.00	6.70
Specific Conductivity	umhos/cm	--	--	1370	904	1088	583	779	1490
Temperature	deg-C	--	--	9.83	16.14	10.77	10.17	11.35	13.10
Turbidity	ntu	--	--	163.	163.	7.7	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	390.	390.	380.	300.	220.	340.
Chloride (as Cl)	mg/L	250.	125.	170.	220.	180.	96.	190.	130.
Iron, total (unfiltered)	mg/L	--	--	12.8	1.28	1.66	<0.020 U	<0.020 U	0.062 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.736	0.799	0.781	0.0221 J	0.0206 J	<0.01 U
Manganese, total (unfiltered)	µg/L	--	--	28.1	31.6	32.7	8.7	4.7 J	20.7
Manganese, dissolved (filtered)	µg/L	50.	25.	<2.2 U	31.1	34.6	19.3	<1.6 U	18.5
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.80 U	<0.60 U	<0.60 U	<0.9 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<1.2 U	<0.90 U	<0.90 U	<1.2 U
Methane	µg/L	--	--	7.1	15.	3.3	1.1	<0.30 U	<0.4 U
Sulfate(as SO4)	mg/L	250.	125.	45.	62.	44.	11.	9.5	17.
Total Organic Carbon	mg/L	--	--	2.1	1.5 J	1.1 J	0.96 J	1.3 J	<0.4 U
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.05 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	0.051 J	<0.030 U	<0.06 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	0.11	<0.024 U	0.2
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.024 U	<0.024 U	<0.07 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.05 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.04 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.05 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.04 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.06 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	0.11	<0.021 U	<0.06 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.026 U	<0.026 U	<0.05 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.04 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.80 U	<0.80 U	<0.8 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.025 U	<0.025 U	<0.06 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.05 U
Acetone	µg/L	9000.	1800.	0.46 JB	<0.30 U	0.61 JB	<1.3 UZ	<1.3 UZ	<0.9 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.018 U	<0.019 U	<0.019 U	<0.06 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.080 U	<0.080 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.029 U	<0.029 U	<0.06 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.04 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.040 U	<0.040 U	<0.06 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.06 U
Chloromethane	µg/L	30.	3.	0.099 JB	<0.040 U	0.097 J	0.055 JB	<0.040 U	<0.05 U
cis-1,2-Dichloroethene	µg/L	70.	7.	2.	1.9	2.	0.052 J	<0.030 U	<0.06 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.019 U	<0.019 U	<0.06 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.070 U	<0.070 U	<0.07 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.060 U	<0.060 U	<0.05 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.050 U	<0.050 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	0.57	0.5	0.6	<0.040 U	<0.040 U	<0.04 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.15 U	<0.15 U	<0.06 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.040 U	<0.040 U	<0.05 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.021 U	<0.021 U	<0.05 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.022 U	<0.022 U	<0.05 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.05 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.06 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.05 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.020 U	<0.020 U	<0.05 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	0.07 J	<0.030 U	0.075 J
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.70 U	<0.70 U	<0.6 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.06 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.068 J	0.05 J	0.089 J	<0.040 U	<0.040 U	<0.06 U
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	0.11	<0.020 U	0.051 J
Vinyl acetate	µg/L	--	--	1.8	<0.22 U	<0.22 U	<0.60 U	<0.60	<0.5 U
Vinyl chloride	µg/L	0.2	0.02	0.032 J	0.024 J	0.044 J	<0.019 U	<0.019 U	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/13/2016	11/4/2016	5/11/2017	11/30/2017	11/15/2018	12/9/2014
	Units	NR140 ES	NR140 PAL	MW-15S	MW-15S	MW-15S	MW-15S	MW-15S	MW-15D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	4.97	1.92	5.88	3.58	5.84	0.71
Oxidation Reduction Potential	millivolts	--	--	228	13	214	54	31	144
pH	pH-units	--	--	7.45	6.70	7.35	7.14	7.17	7.11
Specific Conductivity	umhos/cm	--	--	826	1220	463	586	766	987
Temperature	deg-C	--	--	15.77	8.77	12.86	15.87	12.47	10.61
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	310.	290.	310.	310.	310.	350.
Chloride (as Cl)	mg/L	250.	125.	120.	34.	25.	290.	84.	220.
Iron, total (unfiltered)	mg/L	--	--	<0.020 U	<0.034 U	<0.034 U	<0.034U	<0.034 U	0.265
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	<0.059 U	<0.059 U	<0.059U	<0.059 U	0.014 J
Manganese, total (unfiltered)	µg/L	--	--	10.4	16.2	30.1	7.2J	3.9 J	269.
Manganese, dissolved (filtered)	µg/L	50.	25.	4.5 J	<2.2 U	<2.2 U	5.8J	<2.2 U	235.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 UM	<0.23U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.40U	<0.80 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 UM	<0.50U	<1.2 U	<0.90 U
Methane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	2.6	<0.40 U	2.9
Sulfate(as SO4)	mg/L	250.	125.	19.	6.8	6.8	9.2	8.8	43.
Total Organic Carbon	mg/L	--	--	2.5	1.4 J	2.9	0.95J	1.6	1.5
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.030 U
1,1-Dichloroethane	µg/L	850.	85.	0.074 J	<0.060 U	<0.060 U	<0.060 U	<0.060 U	0.026 J
1,1-Dichloroethene	µg/L	7.	0.7	<0.070 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U	0.052 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.13
1,4-Dichlorobenzene	µg/L	75.	15.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	NA	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA
2,2-Dichloropropane	µg/L	--	--	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U
Acetone	µg/L	9000.	1800.	<0.90 U	<0.30 U	0.41 JB	<0.30 U	0.38 JB	<1.3 UZ
Benzene	µg/L	5.	0.5	<0.060 U	<0.018 U	<0.018 U	<0.018 U	<0.018 U	<0.019 U
Carbon disulfide	µg/L	1000.	200.	<0.11 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.080 U
Carbon tetrachloride	µg/L	5.	0.05	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.029 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.25
Chloroethane	µg/L	400.	80.	<0.060 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.040 U
Chloroform	µg/L	6.	0.6	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	0.093 J	0.04 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	0.16 J	<0.070 U	<0.070 U	0.16J	<0.070 U	3.1
Ethylbenzene	µg/L	700.	140.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	<0.12 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 UYQ	<0.15 U
Naphthalene	µg/L	100.	10.	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U
Styrene	µg/L	100.	10.	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.060 U	<0.050 U	<0.050 U	0.051 J	<0.050 U	<0.030 U
Tetrahydrofuran	µg/L	50.	10.	<0.60 UB	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.70 U
Toluene	µg/L	800.	160.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.086 J
Trichloroethene	µg/L	5.	0.5	0.098 J	<0.050 U	<0.050 U	0.058 J	<0.050 U	9.
Vinyl acetate	µg/L	--	--	<0.50 U	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<0.60 U
Vinyl chloride	µg/L	0.2	0.02	<0.016 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U	0.02 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/7/2015	11/06/2015	5/16/2016	11/4/2016	5/11/2017	11/30/2017
	Units	NR140 ES	NR140 PAL	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.30	2.55	0.00	8.71	0.03	0.00
Oxidation Reduction Potential	millivolts	--	--	47	45	158	114	133	23
pH	pH-units	--	--	6.78	6.67	7.19	7.43	7.06	7.18
Specific Conductivity	umhos/cm	--	--	995	920	1140	528	956	842
Temperature	deg-C	--	--	12.95	12.35	15.91	6.43	13.27	17.03
Turbidity	ntu	--	--	0.	1.6	0.3	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	350.	340.	370.	400.	390.	390.
Chloride (as Cl)	mg/L	250.	125.	190.	180.	45.	200.	160.	200.
Iron, total (unfiltered)	mg/L	--	--	0.0481 J	0.0353 J	0.147	0.0418 J	0.051 J	<0.034U
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0222 J	<0.01 U	<0.010 U	<0.059 U	<0.059 U	<0.059U
Manganese, total (unfiltered)	µg/L	--	--	301.	256.	226.	237.	168.	51.2
Manganese, dissolved (filtered)	µg/L	50.	25.	311.	251.	225.	227.	159.	54.5
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23U
Ethane	µg/L	--	--	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40U
Ethene	µg/L	--	--	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50U
Methane	µg/L	--	--	2.1	1.8	2.8	1 J	<0.40 U	1.2
Sulfate(as SO4)	mg/L	250.	125.	54.	42.	210.	49.	44.	50.
Total Organic Carbon	mg/L	--	--	2.2	0.68 J	2.9	2.8	3.8	1.8
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	0.033 J	<0.06 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	0.071 J	<0.07 U	<0.070 U	<0.060 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	<7.0 U	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.72 JB	<0.30 U
Benzene	µg/L	5.	0.5	<0.019 U	<0.06 U	<0.060 U	0.023 J	0.019 J	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.11 U	<0.11 U	<0.070 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	0.25	0.24	0.28	0.24	0.23	0.25
Chloroethane	µg/L	400.	80.	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.077 J	<0.050 U	<0.040 U	0.044 J	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	3.8	2.5	3.9	2.2	1.4	3.8
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.04 U	0.043 J	<0.040 U	<0.040 U	0.098 J
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.17	0.1 J	0.19 J	0.099 J	0.077 J	0.097 J
Trichloroethene	µg/L	5.	0.5	12.	9.8	12.	9.8	10.	9.5
Vinyl acetate	µg/L	--	--	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	0.03 J	<0.016 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/15/2018	12/8/2014	5/7/2015	11/06/2015	5/13/2016
	Units	NR140 ES	NR140 PAL	MW-15D	MW-15B	MW-15B	MW-15B	MW-15B
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	0.51	1.18	0.13	0.32	0.00
Oxidation Reduction Potential	millivolts	--	--	-27	-131	-121	-128	-129
pH	pH-units	--	--	7.06	7.28	6.81	6.93	7.35
Specific Conductivity	umhos/cm	--	--	947	508	586	552	709
Temperature	deg-C	--	--	11.78	9.17	13.62	12.28	13.52
Turbidity	ntu	--	--	0.8	48.	0.05	0.	1.3
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	350.	410.	390.	420.	440.
Chloride (as Cl)	mg/L	250.	125.	83.	13.	9.2	8.6 M	2.3
Iron, total (unfiltered)	mg/L	--	--	0.0404 J	2.27	2.29	3.31	2.14
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	2.07	2.25	2.45	2.33
Manganese, total (unfiltered)	µg/L	--	--	260.	631.	516.	548.	410.
Manganese, dissolved (filtered)	µg/L	50.	25.	238.	550.	521.	539.	442.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 U	<0.60 U	5.7	<0.9 U	0.93 J
Ethene	µg/L	--	--	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U
Methane	µg/L	--	--	6.6	590.	720.	580.	920.
Sulfate(as SO4)	mg/L	250.	125.	21.	16.	8.9	6.	8.7
Total Organic Carbon	mg/L	--	--	2.1	0.68 J	1.2 J	<0.4 U	1.3 J
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.024 U	<0.024 U	<0.06 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.024 U	<0.024 U	<0.07 U	<0.070 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	0.13	0.031 J	<0.06 U	<0.060 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U
Acetone	µg/L	9000.	1800.	0.33 JB	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U
Chlorobenzene	µg/L	--	--	0.19	<0.024 U	<0.024 U	<0.04 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Chloromethane	µg/L	30.	3.	0.043 J	0.068 JB	<0.040 U	<0.05 U	<0.050 U
cis-1,2-Dichloroethene	µg/L	70.	7.	1.7	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.04 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 UZYQ	<0.15 U	<0.15 U	<0.06 U	<0.060 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.70 U	<0.70 U	<0.6 U	<0.60 U
Toluene	µg/L	800.	160.	<0.040 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.064 J	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Trichloroethene	µg/L	5.	0.5	7.9	<0.020 U	<0.020 U	<0.03 U	<0.030 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.016 U	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/4/2016	5/11/2017	11/30/2017	11/15/2018	12/11/2014
	Units	NR140 ES	NR140 PAL	MW-15B	MW-15B	MW-15B	MW-15B	MW-16S
Field Parameters								Not
Dissolved Oxygen (DO)	mg/L	--	--	0.29	1.40	0.00	0.27	Sampled.
Oxidation Reduction Potential	millivolts	--	--	-115	-92	-132	-172	Ice in well.
pH	pH-units	--	--	7.33	7.23	7.81	6.97	
Specific Conductivity	umhos/cm	--	--	695	549	537	4540	
Temperature	deg-C	--	--	3.20	13.47	15.75	10.86	
Turbidity	ntu	--	--	0.	0.	0.	0.	
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	450.	450.	450.	260.	
Chloride (as Cl)	mg/L	250.	125.	8.6	8.	9.2	1400.	
Iron, total (unfiltered)	mg/L	--	--	2.35	2.33	2.17	4.42	
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.41	2.27	2.14	4.4	
Manganese, total (unfiltered)	µg/L	--	--	429.	348.	334.	716.	
Manganese, dissolved (filtered)	µg/L	50.	25.	411.	360.	381.	725.	
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23U	<0.23 U	
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40U	<0.80 U	
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50U	<1.2 U	
Methane	µg/L	--	--	210.	410.	370.	63.	
Sulfate(as SO4)	mg/L	250.	125.	<1.0 U	<1.0 U	<1.0U	13.	
Total Organic Carbon	mg/L	--	--	1.1 J	<0.50 U	0.84J	3.4	
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	<0.060 U	
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.060 U	
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	<7.0 U	
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.50 U	
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
Acetone	µg/L	9000.	1800.	<0.30 U	0.36 JB	<0.30 U	0.5 JB	
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.018 U	<0.018 U	
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	
Chloromethane	µg/L	30.	3.	<0.040 U	<0.040 U	<0.040 U	0.05 J	
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 UZYQ	
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.40 U	
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.22 U	
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.019 U	

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/8/2015	11/05/2015	5/13/2016	11/4/2016	5/12/2017	11/28/2017
	Units	NR140 ES	NR140 PAL	MW-16S	MW-16S	MW-16S	MW-16S	MW-16S	MW-16S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	9.96	0.36	0.00	0.05	0.05	0.00
Oxidation Reduction Potential	millivolts	--	--	-90	-80	-73	-123	-123	-73
pH	pH-units	--	--	6.44	6.48	7.01	7.07	7.07	6.48
Specific Conductivity	umhos/cm	--	--	299	2510	2730	2690	2690	2220
Temperature	deg-C	--	--	9.96	13.53	15.36	6.32	6.32	16.31
Turbidity	ntu	--	--	19.2	11.4	2.8	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	680.	720.	730.	690.	710.	590.
Chloride (as Cl)	mg/L	250.	125.	260.	230.	250.	220.	210 M	260.
Iron, total (unfiltered)	mg/L	--	--	7.73	6.35	58.3	5.83	6.39 M	5.24
Iron, dissolved (filtered)	mg/L	0.3	0.15	6.3	5.42	5.77	5.66	5.15	4.34
Manganese, total (unfiltered)	µg/L	--	--	67.8	76.3	6.77	66.2	57.7	52.5
Manganese, dissolved (filtered)	µg/L	50.	25.	65.6	64.8	58.6	61.4	46.5	49.3
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	11.	13.	19.	1.7	1.9	6.6 M
Sulfate(as SO4)	mg/L	250.	125.	910.	790.	950.	720.	670 M	690.
Total Organic Carbon	mg/L	--	--	3.8	3.1	4.8	4.6	6.1	3.8
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<3 U	<0.60 U	<2.5 U	<5.0 U	<5.0 U
1,1-Dichloroethane	µg/L	850.	85.	0.23	<3 U	<0.60 U	<3.0 U	<6.0 U	<6.0 U
1,1-Dichloroethene	µg/L	7.	0.7	1.1	<3.5 U	0.81 J	<3.0 U	<6.0 U	<6.0 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<2 U	<0.40 U	<2.0 U	<4.0 U	<4.0 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<3 U	<0.60 U	<2.0 U	<4.0 U	<4.0 U
1,2-Dichloroethane	µg/L	5.	0.5	2.1	3.3 J	2.5	2.5 J	<5.0 U	<5.0 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<3 U	<0.60 U	<2.5 U	<5.0 U	<5.0 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<3 U	<0.60 U	<2.0 U	<4.0 U	<4.0 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	<350 U	<700 U	<700 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<2 U	<0.40 U	<2.5 U	<5.0 U	<5.0 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<40 U	<8.0 U	<25 U	110 J	<50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<3 U	<0.60 U	<1.5 U	<3.0 U	<3.0 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
Acetone	µg/L	9000.	1800.	<1.3 U	<45 U	240 B	<15 U	100 B	51 JB
Benzene	µg/L	5.	0.5	0.024 J	<3 U	<0.60 U	<0.90 U	<1.8 U	<1.8 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<5.5 U	<1.1 U	<3.5 U	<7.0 U	<7.0 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<3 U	<0.60 U	<2.5 U	<5.0 U	<5.0 U
Chlorobenzene	µg/L	--	--	<0.024 U	<2 U	<0.40 U	<2.0 U	<4.0 U	<4.0 U
Chloroethane	µg/L	400.	80.	<0.040 U	<3 U	<0.60 U	<3.5 U	<7.0 U	<7.0 U
Chloroform	µg/L	6.	0.6	<0.030 U	<3 U	<0.60 U	<1.5 U	<3.0 U	<3.0 U
Chloromethane	µg/L	30.	3.	<0.040 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
cis-1,2-Dichloroethene	µg/L	70.	7.	800.	1000.	630.	730.	870.	870.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<3 U	<0.60 U	<2.0 U	<4.0 U	<4.0 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<3.5 U	<0.70 U	<2.5 U	<5.0 U	<5.0 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<6 U	<1.2 U	<3.5 U	<7.0 U	<7.0 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<2 U	<0.40 U	<2.0 U	<4.0 U	<4.0 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<3 U	<0.60 U	<2.5 U	61 M,B	<5.0 U
Naphthalene	µg/L	100.	10.	<0.040 U	<2.5 U	<0.50 U	<1.5 U	<3.0 U	<3.0 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<2.5 U	<0.50 U	<1.5 U	<3.0 U	<3.0 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<2.5 U	<0.50 U	<2.0 U	<4.0 U	<4.0 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<3 U	<0.60 U	<2.0 U	<4.0 U	<4.0 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<2.5 U	<0.50 U	<2.5 U	<5.0 U	<5.0 U
Styrene	µg/L	100.	10.	<0.020 U	<2.5 U	<0.50 U	<1.5 U	<3.0 U	<3.0 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<3 U	<0.60 U	<2.0 U	<4.0 U	<4.0 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<3 U	<0.60 U	<2.5 U	<5.0 U	<5.0 U
Tetrahydrofuran	µg/L	50.	10.	3.1	<30 U	8.8 JZ	29 JB	69 JB	<40 U
Toluene	µg/L	800.	160.	<0.027 U	<3 U	<0.60 U	<2.0 U	<4.0 U	<4.0 U
trans-1,2-Dichloroethene	µg/L	100.	20.	34.	32.	27.	34.	41.	30.
Trichloroethene	µg/L	5.	0.5	0.034 J	<1.5 U	<0.30 U	<2.5 U	<5.0 U	<5.0 U
Vinyl acetate	µg/L	--	--	<0.60 U	<25 U	<5.0 U	<11 U	180.	<22 U
Vinyl chloride	µg/L	0.2	0.02	28.	58.	23.	53.	28.	41.

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/19/2018	12/9/2014	5/7/2015	11/04/2015	5/10/2016	11/3/2016
	Units	NR140 ES	NR140 PAL	MW-16S	MW-101S	MW-101S	MW-101S	MW-101S	MW-101S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.53	5.27	3.64	6.53	2.62	2.88
Oxidation Reduction Potential	millivolts	--	--	-125	110	128	105	336	121
pH	pH-units	--	--	6.84	7.37	6.52	7.18	6.82	7.02
Specific Conductivity	umhos/cm	--	--	2510	1940	1570	2330	3180	374
Temperature	deg-C	--	--	8.59	9.28	19.29	16.49	9.98	13.67
Turbidity	ntu	--	--	0.8	0.	3.9	0.	12.3	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	630.	370.	250.	420.	330.	260.
Chloride (as Cl)	mg/L	250.	125.	230 M	590.	690.	420.	830.	28.
Iron, total (unfiltered)	mg/L	--	--	4.82	<0.020 U	0.0687	0.0383 J	0.0458 J	0.172
Iron, dissolved (filtered)	mg/L	0.3	0.15	4.77	0.0111 J	0.0199 J	<0.01 U	0.0296 J	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	53.6	371.	99.2	157.	68.6	224.
Manganese, dissolved (filtered)	µg/L	50.	25.	53.4	100.	<1.6 U	4.6 J	<1.6 U	<2.2 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 UM,Y	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 U	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	1.7 MY	<0.30 U	<0.30 U	<0.4 U	<0.40 U	<0.40 U
Sulfate(as SO4)	mg/L	250.	125.	550 M	17.	20.	29.	26.	7.5
Total Organic Carbon	mg/L	--	--	5.7	4.6	5.2	5.6	6.5 Y	4.1
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<4.0 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<5.0 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<6.0 U	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<6.0 U	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<4.0 U	<0.040 U	<0.040 U	<0.05 U	<0.050 UY	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<4.0 U	<0.029 U	<0.029 U	<0.04 U	<0.040 UY	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<4.0 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<4.0 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<5.0 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<5.0 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<4.0 U	0.12	<0.021 U	<0.06 U	<0.060 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<4.0 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<700 U	NA	NA	NA	NA	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<5.0 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<3.0 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<4.0 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U
Acetone	µg/L	9000.	1800.	37 JB	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U
Benzene	µg/L	5.	0.5	<1.8 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<7.0 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<5.0 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U
Chlorobenzene	µg/L	--	--	<4.0 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<7.0 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U
Chloroform	µg/L	6.	0.6	<3.0 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U
Chloromethane	µg/L	30.	3.	<4.0 U	0.065 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	770.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<4.0 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<5.0 U	<0.070 U	<0.070 U	<0.07 U	<0.070 UY	<0.050 U
Isopropylbenzene	µg/L	--	--	<4.0 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<7.0 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<4.0 U	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<5.0 UQZ	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U
Naphthalene	µg/L	100.	10.	<3.0 U	<0.040 U	<0.040 U	<0.05 U	<0.050 UY	<0.030 U
n-Butylbenzene	µg/L	--	--	<3.0 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<4.0 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<4.0 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<4.0 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<5.0 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<3.0 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<4.0 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<5.0 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<40 U	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U
Toluene	µg/L	800.	160.	<4.0 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	30.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<5.0 U	<0.020 U	<0.020 U	<0.03 U	<0.030 U	<0.050 U
Vinyl acetate	µg/L	--	--	<22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	25.	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/11/2017	11/29/2017	11/15/2018	12/9/2014	5/7/2015
	Units	NR140 ES	NR140 PAL	MW-101S	MW-101S	MW-101S	MW-101B	MW-101B
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	12.90	0.00	2.01	0.10	0.11
Oxidation Reduction Potential	millivolts	--	--	223	77	39	35	87
pH	pH-units	--	--	6.95	7.31	6.83	7.62	6.85
Specific Conductivity	umhos/cm	--	--	1100	938	419	990	863
Temperature	deg-C	--	--	12.11	17.00	12.80	9.65	14.54
Turbidity	ntu	--	--	0.	0.	0.	0.	0.5
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	310.	410.	210.	330.	320.
Chloride (as Cl)	mg/L	250.	125.	300.	280.	30.	240.	190.
Iron, total (unfiltered)	mg/L	--	--	0.569	0.0584 J	0.142	<0.020 U	0.0525 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.281	<0.059 U	<0.059 U	<0.010 U	0.0115 J
Manganese, total (unfiltered)	µg/L	--	--	21.4	244.	292.	88.2	58.7
Manganese, dissolved (filtered)	µg/L	50.	25.	<2.2 U	61.7	<2.2 U	95.9	58.4
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.80 U	<0.60 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<1.2 U	<0.90 U	<0.90 U
Methane	µg/L	--	--	<0.40 U	<0.40 U	2.3	41.	31.
Sulfate(as SO4)	mg/L	250.	125.	21.	22.	5.4	40.	43.
Total Organic Carbon	mg/L	--	--	<0.50 U	5.2	2.7	0.72 J	1.1 J
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	<0.030 U	<0.030 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	<0.024 U	<0.024 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.024 U	<0.024 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	0.13	<0.021 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.026 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.80 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.025 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U
Acetone	µg/L	9000.	1800.	0.5 JB	<0.30 U	0.3 JB	<1.3 UZ	<1.3 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.018 U	<0.019 U	<0.019 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.080 U	<0.080 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.029 U	<0.029 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.024 U	<0.024 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	0.083 J	<0.040 U	<0.040 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	<0.040 U	<0.040 U	0.073 JB	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.070 U	0.37	0.23
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.019 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.070 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.060 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.050 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	0.26	0.22
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 UZYQ	<0.15 U	<0.15 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.040 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.021 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.022 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.020 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.030 U	<0.030 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.70 U	<0.70 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.027 U	<0.027 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.020 U	0.047 J
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.60 U	<0.60 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/04/2015	5/10/2016	11/3/2016	5/11/2017	11/30/2017
	Units	NR140 ES	NR140 PAL	MW-101B	MW-101B	MW-101B	MW-101B	MW-101B
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	0.19	0.22	0.00	0.18	0.00
Oxidation Reduction Potential	millivolts	--	--	30	253	38	193	-31
pH	pH-units	--	--	7.49	7.24	7.26	7.17	7.20
Specific Conductivity	umhos/cm	--	--	862	1180	999	926	811
Temperature	deg-C	--	--	15.41	10.52	8.81	13.71	16.70
Turbidity	ntu	--	--	0.	1.3	0.	0.	0.
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	350.	360.	370.	380.	380.
Chloride (as Cl)	mg/L	250.	125.	180.	180.	160.	190.	190.
Iron, total (unfiltered)	mg/L	--	--	0.0523 J	<0.020 U	<0.034 U	<0.034U	<0.034 U
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0229 J	<0.010 U	<0.059 U	<0.059U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	128.	51.8	90.3	55.7	69.4
Manganese, dissolved (filtered)	µg/L	50.	25.	115.	57.4	111.	59.7	66.7
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23U	<0.23 U
Ethane	µg/L	--	--	<0.9 U	<0.40 U	<0.40 U	<0.40U	<0.40 U
Ethene	µg/L	--	--	<1.2 U	<0.50 U	<0.50 U	<0.50U	<0.50 U
Methane	µg/L	--	--	67.	75.	170.	130.	41.
Sulfate(as SO4)	mg/L	250.	125.	49.	40.	35.	40.	47.
Total Organic Carbon	mg/L	--	--	<0.4 U	2.	1.2 J	0.82J	3.
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.06 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.07 U	<0.070 U	<0.060 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.068 J	<0.060 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<7.0 U	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.8 U	<0.80 U	<0.50 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<0.9 U	<0.90 U	<0.30 U	0.38 JB	0.36 JB
Benzene	µg/L	5.	0.5	<0.06 U	<0.060 U	<0.018 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.11 U	<0.11 U	<0.070 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.06 U	<0.060 U	<0.070 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.05 U	<0.050 U	<0.040 U	0.041 J	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.34	0.32	0.47	0.51	0.32
Ethylbenzene	µg/L	700.	140.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.07 U	<0.070 U	<0.050 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.12 U	<0.12 U	<0.070 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.29	0.24	0.24	0.28	0.18
Methylene chloride	µg/L	5.	0.5	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.6 U	<0.60 U	<0.40 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.06 U	<0.060 U	0.047 J	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.03 J	0.045 J	<0.050 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.5 U	<0.50 U	<0.22 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.016 U	<0.016 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/15/2018	12/9/2014	5/7/2015	11/06/2015	5/13/2016
	Units	NR140 ES	NR140 PAL	MW-101B	MW-102S	MW-102S	MW-102S	MW-102S
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	0.52	0.71	5.00	2.22	6.79
Oxidation Reduction Potential	millivolts	--	--	-42	144	122	83	356
pH	pH-units	--	--	7.06	7.16	6.61	6.42	7.14
Specific Conductivity	umhos/cm	--	--	986	2520	1980	2640	1230
Temperature	deg-C	--	--	12.55	9.80	10.33	13.44	12.17
Turbidity	ntu	--	--	0.	0.	0.	0.	0.
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	380.	420.	360.	420.	350.
Chloride (as Cl)	mg/L	250.	125.	170.	650.	490.	630.	220.
Iron, total (unfiltered)	mg/L	--	--	<0.034 U	<0.020 U	<0.020 U	<0.02 U	<0.020 U
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	<0.010 U	0.0112 J	<0.01 U	<0.010 U
Manganese, total (unfiltered)	µg/L	--	--	80.6	<1.4 U	<1.4 U	7.	<1.4 U
Manganese, dissolved (filtered)	µg/L	50.	25.	79.3	<1.6 U	<1.6 U	<1.6 U	<1.6 U
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 U	<0.60 U	<0.60 U	<0.9 UY	<0.40 U
Ethene	µg/L	--	--	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U
Methane	µg/L	--	--	0.94 J	<0.30 U	<0.30 U	<0.4 UY	<0.40 U
Sulfate(as SO4)	mg/L	250.	125.	47.	29.	26.	27.	28.
Total Organic Carbon	mg/L	--	--	1.9	1.6	1.8	2.3	0.97 J
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.024 U	<0.024 U	<0.06 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.024 U	<0.024 U	<0.07 U	<0.070 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	0.1	<0.021 U	<0.06 U	<0.060 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U
Acetone	µg/L	9000.	1800.	0.45 JB	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Chloromethane	µg/L	30.	3.	0.054 J	0.066 JB	<0.040 U	<0.05 U	<0.050 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.34	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	0.28	<0.040 U	<0.040 U	<0.04 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 UZYQ	<0.15 U	<0.15 U	<0.06 U	<0.060 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.70 U	<0.70 U	<0.6 U	<0.60 U
Toluene	µg/L	800.	160.	<0.040 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.020 U	<0.020 U	<0.03 U	<0.030 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.016 U	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/3/2016	5/11/2017	11/30/2017	11/16/2018	12/9/2014
	Units	NR140 ES	NR140 PAL	MW-102S	MW-102S	MW-102S	MW-102S	MW-102D
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	0.63	1.91	0.00	1.31	7.07
Oxidation Reduction Potential	millivolts	--	--	94	164	65	72	-80
pH	pH-units	--	--	6.96	6.82	7.10	6.61	7.61
Specific Conductivity	umhos/cm	--	--	2350	2820	3380	4180	1010
Temperature	deg-C	--	--	11.78	12.84	18.40	11.96	8.65
Turbidity	ntu	--	--	0.	0.	0.	0.	0.
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	460.	460.	520.	510.	330.
Chloride (as Cl)	mg/L	250.	125.	590.	710.	200.	960.	230.
Iron, total (unfiltered)	mg/L	--	--	<0.034 U	<0.034 U	<0.034 U	<0.034 U	0.754
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	<0.059 U	<0.059 U	<0.059 U	0.592
Manganese, total (unfiltered)	µg/L	--	--	<3.4 U	<3.4 U	<3.4 U	<3.4 U	23.9
Manganese, dissolved (filtered)	µg/L	50.	25.	<2.2 U	<2.2 U	<2.2 U	<2.2 U	21.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.80 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<1.2 U	<0.90 U
Methane	µg/L	--	--	<0.40 U	5.6	<0.40 U	<0.40 U	6.1
Sulfate(as SO4)	mg/L	250.	125.	21.	30.	47.	33.	48.
Total Organic Carbon	mg/L	--	--	1.8	3.8	2.7	3.7	1.2 J
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.030 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	<0.060 U	<0.060 U	<0.024 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	<0.060 U	<0.060 U	0.052 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.075 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.15
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U
Acetone	µg/L	9000.	1800.	<0.30 U	0.38 JB	0.51 JB	0.32 JB	<1.3 UZ
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.018 U	<0.018 U	<0.019 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.080 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.029 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.024 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.040 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	<0.040 U	<0.040 U	0.076 J	0.055 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	10.
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.35
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 UZYQ	<0.15 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.030 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.70 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.027 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	0.28
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.37
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<0.60 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.019 U	0.15

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	5/7/2015	11/06/2015	5/18/2016	11/3/2016	5/11/2017	11/30/2017
	Units	NR140 ES	NR140 PAL	MW-102D	MW-102D	MW-102D	MW-102D	MW-102D	MW-102D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.30	0.29	0.00	1.07	0.00
Oxidation Reduction Potential	millivolts	--	--	-78	-70	-2	-87	-44	-83
pH	pH-units	--	--	6.90	6.88	6.79	7.20	7.06	7.46
Specific Conductivity	umhos/cm	--	--	977	887	1400	1330	1180	958
Temperature	deg-C	--	--	11.97	11.65	11.56	11.12	12.36	17.73
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	330.	340.	460.	480.	480.	370.
Chloride (as Cl)	mg/L	250.	125.	200.	160.	220.	210.	210 M	290.
Iron, total (unfiltered)	mg/L	--	--	0.785	0.628	1.4	1.67	1.76	1.04
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.769	0.553	1.54	1.78	1.72	0.961
Manganese, total (unfiltered)	µg/L	--	--	27.4	31.8	37.7	40.2	35.6	25.8
Manganese, dissolved (filtered)	µg/L	50.	25.	29.4	20.3	34.2	39.7	35.1	26.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23U
Ethane	µg/L	--	--	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40U
Ethene	µg/L	--	--	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50U
Methane	µg/L	--	--	7.	7.9	12.	8.8	3.1	0.44J
Sulfate(as SO4)	mg/L	250.	125.	57.	45.	100.	96.	87 M	55.
Total Organic Carbon	mg/L	--	--	1.5	0.84 J	2.3	2.3	3.6	1.1J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.10 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.06 U	<0.30 U	<0.060 U	<0.15 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	0.058 J	<0.07 U	<0.35 U	0.09 J	<0.15 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.04 U	<0.20 U	<0.040 U	<0.10 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	0.067 J	0.074 J	0.28 J	0.26	0.3 J	0.13J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.033 J	<0.06 U	<0.30 U	<0.040 U	<0.10 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	<7.0 U	<18 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.04 U	<0.20 U	<0.050 U	<0.13 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.8 U	<4.0 U	<0.50 U	<1.3 U	3.
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.06 U	<0.30 U	<0.030 U	<0.075 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 U	<0.9 U	110 B	<0.30 U	2 JB	0.39 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.06 U	<0.30 U	<0.018 U	<0.045 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.11 U	<0.55 U	<0.070 U	<0.18 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.04 U	<0.20 U	<0.040 U	<0.10 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.06 U	<0.30 U	<0.070 U	<0.18 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.06 U	<0.30 U	<0.030 U	<0.075 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	<0.05 U	<0.25 U	<0.040 U	0.1 J	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	7.8	9.3	28.	32.	38.	18.
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.07 U	<0.35 U	<0.050 U	<0.13 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.12 U	<0.60 U	<0.070 U	<0.18 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	0.38	0.35	0.98	1.	1.	0.51
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.06 U	<0.30 U	<0.050 U	2.7	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.05 U	<0.25 U	<0.030 U	<0.075 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.05 U	<0.25 U	<0.030 U	<0.075 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.05 U	<0.25 U	<0.040 U	<0.10 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.05 U	<0.25 U	<0.050 U	<0.13 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.05 U	<0.25 U	<0.030 U	<0.075 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.06 U	<0.30 U	<0.050 U	<0.13 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.6 U	<3.0 U	<0.40 U	<1.0 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.06 U	<0.30 U	<0.040 U	<0.10 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.22	0.25	0.72 J	1.1	1.1	0.52
Trichloroethene	µg/L	5.	0.5	0.26	0.36	0.24 J	0.17	0.16 J	0.21
Vinyl acetate	µg/L	--	--	<0.60 U	<0.5 U	<2.5 U	<0.22 U	<0.55 U	2.5
Vinyl chloride	µg/L	0.2	0.02	0.23	0.21	0.32	0.23	0.25	0.25

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/16/2018	12/8/2014	5/5/2015	11/04/2015	5/18/2016
	Units	NR140 ES	NR140 PAL	MW-102D	MW-103S	MW-103S	MW-103S	MW-103S
Field Parameters								
Dissolved Oxygen (DO)	mg/L	--	--	0.87	0.76	0.00	0.65	5.74
Oxidation Reduction Potential	millivolts	--	--	-116	116	90	134	213
pH	pH-units	--	--	7.05	7.05	7.07	7.04	6.65
Specific Conductivity	umhos/cm	--	--	1202	736	1040	896	841
Temperature	deg-C	--	--	11.19	8.99	8.07	18.20	10.40
Turbidity	ntu	--	--	0.	2.4	4.6	0.	0.
Natural Attenuation Parameters								
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	480.	510.	450.	550.	490.
Chloride (as Cl)	mg/L	250.	125.	220.	71.	47.	89.	57.
Iron, total (unfiltered)	mg/L	--	--	1.92	0.0347 J	0.0645 J	0.0491 J	0.0206 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.96	0.0224 J	<0.010 U	0.0222 J	0.0339
Manganese, total (unfiltered)	µg/L	--	--	38.5	394.	414.	449.	394.
Manganese, dissolved (filtered)	µg/L	50.	25.	39.	182.	366.	311.	348.
Acetylene	µg/L	--	--	<0.23 UMY	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 UMY	<0.60 U	<0.60 U	<0.9 U	<0.40 U
Ethene	µg/L	--	--	<1.2 UMY	<0.90 U	<0.90 U	<1.2 U	<0.50 U
Methane	µg/L	--	--	2.1 MY	3.	6.2	11.	88.
Sulfate(as SO4)	mg/L	250.	125.	93.	52.	46.	88.	69.
Total Organic Carbon	mg/L	--	--	2.5	6.8	5.7	6.9	6.9
VOCs								
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.30 U	<0.30 U	<0.5 U	<0.50 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	32.	21.	39.	30.
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	7.3	4.8	12.	7.6
1,1-Dichloroethene	µg/L	7.	0.7	0.083 J	2.3	1.8	5.1	4.
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.40 U	<0.40 U	<0.5 U	<0.50 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.29 U	<0.29 U	<0.4 U	<0.40 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.24 U	<0.24 U	<0.5 U	<0.50 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.25 U	<0.25 U	<0.6 U	<0.60 U
1,2-Dichloroethane	µg/L	5.	0.5	0.21	0.33 J	0.75 J	1.2 J	1.2 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.22 U	<0.22 U	<0.6 U	<0.60 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.21 U	<0.21 U	<0.6 U	<0.60 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.26 U	<0.26 U	<0.5 U	<0.50 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.22 U	<0.22 U	<0.4 U	<0.40 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<8.0 U	<8.0 U	<8 U	<8.0 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.25 U	<0.25 U	<0.6 U	<0.60 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.29 U	<0.29 U	<0.5 U	<0.50 U
Acetone	µg/L	9000.	1800.	0.42 JB	<13 UZ	<13 UZ	<9 U	250 B
Benzene	µg/L	5.	0.5	<0.018 U	0.59 J	0.43 J	<0.6 U	<0.60 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.80 U	<0.80 U	<1.1 U	<1.1 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.29 U	<0.29 U	<0.6 U	<0.60 U
Chlorobenzene	µg/L	--	--	<0.040 U	1.3	0.76 J	2.1	0.86 J
Chloroethane	µg/L	400.	80.	<0.070 U	<0.40 U	<0.40 U	0.72 J	1.3 J
Chloroform	µg/L	6.	0.6	<0.030 U	<0.30 U	<0.30 U	<0.6 U	<0.60 U
Chloromethane	µg/L	30.	3.	0.1 J	<0.40 U	<0.40 U	<0.5 U	<0.50 U
cis-1,2-Dichloroethene	µg/L	70.	7.	30.	27.	19.	54.	33.
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.19 U	<0.19 U	<0.6 U	<0.60 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.70 U	<0.70 U	<0.7 U	<0.70 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.50 U	<0.50 U	<1.2 U	<1.2 U
Methyl tert-butyl ether	µg/L	60.	12.	0.72	<0.40 U	<0.40 U	<0.4 U	<0.40 U
Methylene chloride	µg/L	5.	0.5	<0.050 UZYQ	<1.5 U	<1.5 U	<0.6 U	<0.60 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.40 U	<0.40 U	<0.5 U	<0.50 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.21 U	<0.21 U	<0.5 U	<0.50 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.22 U	<0.22 U	<0.5 U	<0.50 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.27 U	<0.27 U	<0.5 U	<0.50 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.30 U	<0.30 U	<0.6 U	<0.60 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.24 U	<0.24 U	<0.5 U	<0.50 U
Styrene	µg/L	100.	10.	<0.030 U	<0.20 U	<0.20 U	<0.5 U	<0.50 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.25 U	<0.25 U	<0.6 U	<0.60 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	3.8	8.3	11.	9.6
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<7.0 U	<7.0 U	<6 U	<6.0 U
Toluene	µg/L	800.	160.	<0.040 U	<0.27 U	<0.27 U	<0.6 U	<0.60 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.84	1.1 J	0.74 J	2.	0.90 J
Trichloroethene	µg/L	5.	0.5	0.23	100.	73.	130.	57.
Vinyl acetate	µg/L	--	--	<0.22 U	<6.0 U	<6.0 U	<5 U	<5.0 U
Vinyl chloride	µg/L	0.2	0.02	0.25	0.49 J	0.64	1.5	1.5

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/2/2016	5/9/2017	11/28/2017	11/8/2018	12/8/2014	12/17/2014
	Units	NR140 ES	NR140 PAL	MW-103S	MW-103S	MW-103S	MW-103S	MW-103D	MW-103D Dup
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.92	2.10	0.00	0.76	9.07	11.65
Oxidation Reduction Potential	millivolts	--	--	165	132	-27	47	-6	39
pH	pH-units	--	--	6.78	7.22	7.13	6.84	6.96	7.75
Specific Conductivity	umhos/cm	--	--	883	1080	782	778	826	1050
Temperature	deg-C	--	--	8.03	8.30	17.34	11.47	9.17	8.60
Turbidity	ntu	--	--	0.	0.	0.	0.	3.65	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	450.	520.	590.	500.	420.	410.
Chloride (as Cl)	mg/L	250.	125.	68.	31.	97.	23.	180 M	140.
Iron, total (unfiltered)	mg/L	--	--	0.04 J	0.0721 J	0.0547 J	<0.034 U	0.12	<0.020 U
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	<0.059 U	<0.059 U	<0.059 U	0.0229 J	0.0168 J
Manganese, total (unfiltered)	µg/L	--	--	274.	423.	984.	408.	258.	233.
Manganese, dissolved (filtered)	µg/L	50.	25.	319.	547 M	309.	377.	195.	207.
Acetylene	µg/L	--	--	<0.23 U	<0.23 UM	<0.23 U	<0.23 U	<0.23 U	<0.60 U
Ethane	µg/L	--	--	<0.40 U	<0.40 UM	<0.40 U	<0.80 U	<0.60 U	<0.23 U
Ethene	µg/L	--	--	<0.50 U	<0.50 UM	<0.50 U	<1.2 U	<0.90 U	<0.90 U
Methane	µg/L	--	--	7.7	5.2	78.	1.2	1.9	2.8
Sulfate(as SO4)	mg/L	250.	125.	35.	67 M	100.	22.	62.	53.
Total Organic Carbon	mg/L	--	--	6.	8.5	5.3	6.3	7.	21.
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.5 U	<1.5 U
1,1,1-Trichloroethane	µg/L	200.	40.	37.	58.	53.	23.	55.	55.
1,1-Dichloroethane	µg/L	850.	85.	5.1	11.	11.	3.	8.3	8.3
1,1-Dichloroethene	µg/L	7.	0.7	2.	6.4	4.4	1.4	2.9 J	2.4 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<2.0 U	<2.0 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.5 U	<1.5 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	16.	1.6 J
1,2-Dichlorobenzene	µg/L	600.	60.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.3 U	<1.3 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.50 U	<1.0 U	<1.0 U	<0.25 U	<1.2 U	<1.2 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.50 U	<1.0 U	<1.0 U	<0.25 U	<1.1 U	<1.1 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.1 U	<1.1 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.3 U	<1.3 U
1,4-Dioxane	µg/L	3.	0.3	<70 U	<140 U	<140 U	<35 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.50 U	<1.0 U	<1.0 U	<0.25 U	<1.1 U	<1.1 U
2-Butanone (MEK)	µg/L	4000.	800.	<5.0 U	<10 U	<10 U	<2.5 U	<40 U	<40 U
2-Chlorotoluene	µg/L	--	--	<0.30 U	<0.60 U	<0.60 U	<0.15 U	<1.3 U	<1.3 U
4-Chlorotoluene	µg/L	--	--	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.5 U	<1.5 U
Acetone	µg/L	9000.	1800.	<3.0 U	19 JB	25 B	1.9 JB	<65 UZ	<65 UZ
Benzene	µg/L	5.	0.5	0.31 J	0.55 J	<0.36 U	0.35	<0.95 U	<0.95 U
Carbon disulfide	µg/L	1000.	200.	<0.70 U	<1.4 U	<1.4 U	<0.35 U	<4.0 U	<4.0 U
Carbon tetrachloride	µg/L	5.	0.05	<0.50 U	<1.0 U	<1.0 U	<0.25 U	<1.5 U	<1.5 U
Chlorobenzene	µg/L	--	--	1.4 J	<0.80 U	1.2 J	0.55 J	<1.2 U	<1.2 U
Chloroethane	µg/L	400.	80.	<0.70 U	<1.4 U	<1.4 U	<0.35 U	<2.0 U	<2.0 U
Chloroform	µg/L	6.	0.6	<0.30 U	<0.60 U	<0.60 U	<0.15 U	<1.5 U	<1.5 U
Chloromethane	µg/L	30.	3.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<2.0 U	<2.0 U
cis-1,2-Dichloroethene	µg/L	70.	7.	13.	24.	14.	3.9	63.	60.
Ethylbenzene	µg/L	700.	140.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<0.95 U	<0.95 U
Hexachlorobutadiene	µg/L	--	--	<0.50 U	<1.0 U	<1.0 U	<0.25 U	<3.5 U	<3.5 U
Isopropylbenzene	µg/L	--	--	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<3.0 U	<3.0 U
m & p-Xylene	µg/L	2000.	400.	<0.70 U	<1.4 U	<1.4 U	<0.35 U	<2.5 U	<2.5 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<2.0 U	<2.0 U
Methylene chloride	µg/L	5.	0.5	<0.50 U	6 B	<1.0 U	<0.25 UZ	<7.5 U	<7.5 U
Naphthalene	µg/L	100.	10.	<0.30 U	<0.60 U	<0.60 U	<0.15 U	<2.0 U	<2.0 U
n-Butylbenzene	µg/L	--	--	<0.30 U	<0.60 U	<0.60 U	<0.15 U	<1.1 U	<1.1 U
n-Propylbenzene	µg/L	--	--	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.1 U	<1.1 U
o-Xylene	µg/L	2000.	400.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.4 U	<1.4 U
p-Isopropyltoluene	µg/L	--	--	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.5 U	<1.5 U
sec-Butylbenzene	µg/L	--	--	<0.50 U	<1.0 U	<1.0 U	<0.25 U	<1.2 U	<1.2 U
Styrene	µg/L	100.	10.	<0.30 U	<0.60 U	<0.60 U	<0.15 U	<1.0 U	<1.0 U
tert-Butylbenzene	µg/L	--	--	<0.40 U	<0.80 U	<0.80 U	<0.20 U	<1.3 U	<1.3 U
Tetrachloroethene	µg/L	5.	0.05	17.	25.	24.	14.	<1.5 U	<1.5 U
Tetrahydrofuran	µg/L	50.	10.	4.4 JB	13 JB	<8.0 U	<2.0 U	<35 U	<35 U
Toluene	µg/L	800.	160.	<0.40 U	<0.80 U	<0.80 U	<0.20 U	2 J	<1.4 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.55 J	1.1 J	0.87 J	<0.20 U	<2.0 U	<2.0 U
Trichloroethene	µg/L	5.	0.5	110.	170.	120.	26.	460.	440.
Vinyl acetate	µg/L	--	--	<2.2 U	<4.4 U	<4.4 U	<1.1 U	<30 U	<30 U
Vinyl chloride	µg/L	0.2	0.02	0.44 J	0.85 J	0.57 J	<0.095 U	1.1 J	<0.95 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/5/2015	5/5/2015	11/04/2015	11/04/2015	5/18/2016	5/18/2016
	Units	NR140 ES	NR140 PAL	MW-103D	MW-103D Dup	MW-103D	MW-103D DUP	MW-103D	MW-103D Dup
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.00	0.46	0.47	0.02	0.02
Oxidation Reduction Potential	millivolts	--	--	81	81	78	82	218	220
pH	pH-units	--	--	7.17	7.17	7.11	7.10	6.80	6.80
Specific Conductivity	umhos/cm	--	--	1410	1410	923	923	1110	1110
Temperature	deg-C	--	--	9.78	9.78	13.82	13.79	11.46	11.45
Turbidity	ntu	--	--	3.2	3.2	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	390.	400.	440.	440.	450.	450.
Chloride (as Cl)	mg/L	250.	125.	170.	170.	150.	150.	180.	180.
Iron, total (unfiltered)	mg/L	--	--	0.0253 J	0.128	0.0614 J	0.0473 J	0.0599 J	0.228
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	<0.010 U	0.0399	0.0419	<0.010 U	<0.010 U
Manganese, total (unfiltered)	µg/L	--	--	340.	367.	309.	294.	379.	364.
Manganese, dissolved (filtered)	µg/L	50.	25.	324.	320.	280.	282.	335.	331.
Acetylene	µg/L	--	--	<0.60 U	<0.60 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.23 U	<0.23 U	<0.9 U	<0.9 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<1.2 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	5.1	4.6	4.5	5.2	13.	12.
Sulfate(as SO4)	mg/L	250.	125.	60.	60.	62.	61.	77.	74.
Total Organic Carbon	mg/L	--	--	5.2	4.9	3.9	4.1	5.6	6.7
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<1.5 U	<1.5 U	<1 U	<1 U	<1.3 U	<0.50 U
1,1,1-Trichloroethane	µg/L	200.	40.	49.	47.	46.	43.	44.	34.
1,1-Dichloroethane	µg/L	850.	85.	7.9	7.8	7.	7.1	7.	5.8
1,1-Dichloroethene	µg/L	7.	0.7	2 J	2.3 J	2.3 J	2.4 J	2.1 J	1.3 J
1,2,3-Trichlorobenzene	µg/L	--	--	<2.0 U	<2.0 U	<1 U	<1 U	<1.3 U	<0.50 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<1.5 U	<1.5 U	<0.8 U	<0.8 U	<1.0 U	<0.40 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<1.2 U	<1.2 U	<1 U	<1 U	<1.3 U	<0.50 U
1,2-Dichlorobenzene	µg/L	600.	60.	<1.3 U	<1.3 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
1,2-Dichloroethane	µg/L	5.	0.5	<1.2 U	<1.2 U	<0.8 U	<0.8 U	<1.0 U	<0.40 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<1.1 U	<1.1 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
1,3-Dichlorobenzene	µg/L	600.	120.	<1.1 U	<1.1 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
1,4-Dichlorobenzene	µg/L	75.	15.	<1.3 U	<1.3 U	<1 U	<1 U	<1.3 U	<0.50 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<1.1 U	<1.1 U	<0.8 U	<0.8 U	<1.0 U	<0.40 U
2-Butanone (MEK)	µg/L	4000.	800.	<40 U	<40 U	<16 U	<16 U	<20 U	<8.0 U
2-Chlorotoluene	µg/L	--	--	<1.3 U	<1.3 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
4-Chlorotoluene	µg/L	--	--	<1.5 U	<1.5 U	<1 U	<1 U	<1.3 U	<0.50 U
Acetone	µg/L	9000.	1800.	<65 UZ	<65 UZ	<18 U	<18 U	660 B	230 B
Benzene	µg/L	5.	0.5	<0.95 U	<0.95 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Carbon disulfide	µg/L	1000.	200.	<4.0 U	<4.0 U	<2.2 U	<2.2 U	<2.8 U	<1.1 U
Carbon tetrachloride	µg/L	5.	0.05	<1.5 U	<1.5 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Chlorobenzene	µg/L	--	--	<1.2 U	<1.2 U	<0.8 U	<0.8 U	<1.0 U	<0.40 U
Chloroethane	µg/L	400.	80.	<2.0 U	<2.0 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Chloroform	µg/L	6.	0.6	<1.5 U	<1.5 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Chloromethane	µg/L	30.	3.	<2.0 U	<2.0 U	<1 U	<1 U	<1.3 U	<0.50 U
cis-1,2-Dichloroethene	µg/L	70.	7.	48.	50.	48.	50.	43.	33.
Ethylbenzene	µg/L	700.	140.	<0.95 U	<0.95 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Hexachlorobutadiene	µg/L	--	--	<3.5 U	<3.5 U	<1.4 U	<1.4 U	<1.8 U	<0.70 U
Isopropylbenzene	µg/L	--	--	<3.0 U	<3.0 U	<1 U	<1 U	<1.3 U	<0.50 U
m & p-Xylene	µg/L	2000.	400.	<2.5 U	<2.5 U	<2.4 U	<2.4 U	<3.0 U	<1.2 U
Methyl tert-butyl ether	µg/L	60.	12.	<2.0 U	<2.0 U	<0.8 U	<0.8 U	<1.0 U	<0.40 U
Methylene chloride	µg/L	5.	0.5	<7.5 U	<7.5 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Naphthalene	µg/L	100.	10.	<2.0 U	<2.0 U	<1 U	<1 U	<1.3 U	<0.50 U
n-Butylbenzene	µg/L	--	--	<1.1 U	<1.1 U	<1 U	<1 U	<1.3 U	<0.50 U
n-Propylbenzene	µg/L	--	--	<1.1 U	<1.1 U	<1 U	<1 U	<1.3 U	<0.50 U
o-Xylene	µg/L	2000.	400.	<1.4 U	<1.4 U	<1 U	<1 U	<1.3 U	<0.50 U
p-Isopropyltoluene	µg/L	--	--	<1.5 U	<1.5 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
sec-Butylbenzene	µg/L	--	--	<1.2 U	<1.2 U	<1 U	<1 U	<1.3 U	<0.50 U
Styrene	µg/L	100.	10.	<1.0 U	<1.0 U	<1 U	<1 U	<1.3 U	<0.50 U
tert-Butylbenzene	µg/L	--	--	<1.3 U	<1.3 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Tetrachloroethene	µg/L	5.	0.05	<1.5 U	<1.5 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Tetrahydrofuran	µg/L	50.	10.	<35 U	<35 U	<12 U	<12 U	<15 U	<6.0 U
Toluene	µg/L	800.	160.	<1.4 U	<1.4 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<2.0 U	<2.0 U	<1.2 U	<1.2 U	<1.5 U	<0.60 U
Trichloroethene	µg/L	5.	0.5	430.	420.	420.	430.	390.	340.
Vinyl acetate	µg/L	--	--	<30 U	<30 U	<10 U	<10 U	<13 U	<5.0 U
Vinyl chloride	µg/L	0.2	0.02	1.4 J	1.3 J	0.5 J	0.74 J	<0.40 U	0.50 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/2/2016	11/2/2016	5/9/2017	5/9/2017	11/28/2017	11/9/2018
	Units	NR140 ES	NR140 PAL	MW-103D	MW-103D Dup	MW-103D	MW-103D Dup	MW-103D	MW-103D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.00	0.60	0.60	0.00	0.95
Oxidation Reduction Potential	millivolts	--	--	4	4	137	137	-14	-27
pH	pH-units	--	--	6.81	6.81	7.24	7.24	6.73	6.95
Specific Conductivity	umhos/cm	--	--	1290	1290	1460	1460	942	1153
Temperature	deg-C	--	--	6.87	6.88	8.96	8.96	17.41	8.40
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	4.3
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	470.	460.	450.	440.	430.	430.
Chloride (as Cl)	mg/L	250.	125.	160.	170.	170.	170.	270.	200.
Iron, total (unfiltered)	mg/L	--	--	0.0831 J	0.133	0.0699 J	0.0487 J	0.0447 J	0.0468 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	<0.059 U	<0.059 U	<0.059 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	403.	388.	358.	369.	269.	284.
Manganese, dissolved (filtered)	µg/L	50.	25.	398.	389.	312.	316.	286.	315.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.80 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.2 U
Methane	µg/L	--	--	7.9	7.8	<0.40 U	0.5 J	3.4	0.61 J
Sulfate(as SO4)	mg/L	250.	125.	68.	73.	71.	70.	73.	67.
Total Organic Carbon	mg/L	--	--	5.4	5.4	5.5	5.4	3.8	4.5
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,1,1-Trichloroethane	µg/L	200.	40.	36.	38.	36.	34.	32.	32.
1,1-Dichloroethane	µg/L	850.	85.	5.8	5.6	6.7 J	6.9 J	6.2 J	6.8 J
1,1-Dichloroethene	µg/L	7.	0.7	1.5 J	1.6 J	<3.0 U	<3.0 U	<3.0 U	<3.0 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,2-Dichloroethane	µg/L	5.	0.5	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
1,4-Dioxane	µg/L	3.	0.3	<140 U	<140 U	<350 UM,Y	<350 U	<350 U	<350 U
2,2-Dichloropropane	µg/L	--	--	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Butanone (MEK)	µg/L	4000.	800.	<10 U	<10 U	<25 U	<25 U	<25 U	<25 U
2-Chlorotoluene	µg/L	--	--	<0.60 U	<0.60 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
4-Chlorotoluene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Acetone	µg/L	9000.	1800.	<6.0 U	<6.0 U	48 JM,Y,B	58 B	21 JB	22 JB
Benzene	µg/L	5.	0.5	<0.36 U	<0.36 U	<0.90 U	<0.90 U	<0.90 U	<0.90 U
Carbon disulfide	µg/L	1000.	200.	<1.4 U	<1.4 U	<3.5 UM,Y	<3.5 U	<3.5 U	<3.5 U
Carbon tetrachloride	µg/L	5.	0.05	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Chlorobenzene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Chloroethane	µg/L	400.	80.	<1.4 U	<1.4 U	<3.5 U	<3.5 U	<3.5 U	<3.5 U
Chloroform	µg/L	6.	0.6	<0.60 U	<0.60 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
Chloromethane	µg/L	30.	3.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
cis-1,2-Dichloroethene	µg/L	70.	7.	43.	43.	49.	47.	52.	64.
Ethylbenzene	µg/L	700.	140.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Hexachlorobutadiene	µg/L	--	--	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Isopropylbenzene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
m & p-Xylene	µg/L	2000.	400.	<1.4 U	<1.4 U	<3.5 U	<3.5 U	<3.5 U	<3.5 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Methylene chloride	µg/L	5.	0.5	<1.0 U	<1.0 U	14 Y	16.	<2.5 U	<2.5 U
Naphthalene	µg/L	100.	10.	<0.60 U	<0.60 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
n-Butylbenzene	µg/L	--	--	<0.60 U	<0.60 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
n-Propylbenzene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
o-Xylene	µg/L	2000.	400.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
p-Isopropyltoluene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
sec-Butylbenzene	µg/L	--	--	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Styrene	µg/L	100.	10.	<0.60 U	<0.60 U	<1.5 U	<1.5 U	<1.5 U	<1.5 U
tert-Butylbenzene	µg/L	--	--	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Tetrachloroethene	µg/L	5.	0.05	<1.0 U	<1.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
Tetrahydrofuran	µg/L	50.	10.	8.2 JB	<8.0 U	<20 U	<20 U	<20 U	<20 U
Toluene	µg/L	800.	160.	<0.80 U	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
trans-1,2-Dichloroethene	µg/L	100.	20.	0.95 J	<0.80 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Trichloroethene	µg/L	5.	0.5	360.	360.	380.	360.	340.	320.
Vinyl acetate	µg/L	--	--	<4.4 U	<4.4 U	<11 U	<11 U	<11 U	<11 U
Vinyl chloride	µg/L	0.2	0.02	<0.38 U	<0.38 U	1.5 J	1.2 J	<0.95 U	<0.95 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/9/2018	12/10/2014	12/17/2014	5/5/2015	5/5/2015	11/03/2015
	Units	NR140 ES	NR140 PAL	MW-103D Dup	MW-105S	MW-105S Dup	MW-105S	MW-105S Dup	MW-105S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	1.03	0.68	10.42	0.00	0.00	0.37
Oxidation Reduction Potential	millivolts	--	--	-24	-27	-46	-55	-55	-48
pH	pH-units	--	--	6.96	7.46	7.51	7.20	7.20	7.24
Specific Conductivity	umhos/cm	--	--	1149	1430	1750	2360	2360	1910
Temperature	deg-C	--	--	8.62	7.80	6.52	8.39	8.39	20.20
Turbidity	ntu	--	--	8.6	188.	101.	22.8	22.8	9.3
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	430.	390.	390.	380.	380.	400.
Chloride (as Cl)	mg/L	250.	125.	210.	440.	330.	510.	420.	400.
Iron, total (unfiltered)	mg/L	--	--	0.0487 J	7.44	3.53	2.41	2.45	2.27
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	0.924	0.634	1.71	1.69	1.07
Manganese, total (unfiltered)	µg/L	--	--	292.	205.	217.	218.	212.	254.
Manganese, dissolved (filtered)	µg/L	50.	25.	306.	201.	178.	219.	215.	204.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.80 U	2.6	4.	2.3	2.3	2.4 J
Ethene	µg/L	--	--	<1.2 U	5.	5.4	1.5 J	1.6 J	<1.2 U
Methane	µg/L	--	--	0.69 J	250.	330.	140.	140.	310.
Sulfate(as SO4)	mg/L	250.	125.	66.	69.	57.	56.	55.	56.
Total Organic Carbon	mg/L	--	--	4.5	3.3	16.	2.1	2.6	2.4
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<2.0 U	<3.0 U	16 J	<6.0 U	<6.0 U	<2.5 U
1,1,1-Trichloroethane	µg/L	200.	40.	32.	<3.0 U	<15 U	<6.0 U	<6.0 U	<3 U
1,1-Dichloroethane	µg/L	850.	85.	6.8 J	93.	90.	73.	71.	48.
1,1-Dichloroethene	µg/L	7.	0.7	<3.0 U	14.	<12 U	11 J	11 J	7.6 J
1,2,3-Trichlorobenzene	µg/L	--	--	<2.0 U	4.1 J	110.	<8.0 U	<8.0 U	<2.5 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<2.0 U	<2.9 U	100.	<5.8 U	<5.8 U	<2 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<2.0 U	<2.4 U	45.	<4.8 U	<4.8 U	<2.5 U
1,2-Dichlorobenzene	µg/L	600.	60.	<2.0 U	<2.5 U	56.	<5.0 U	<5.0 U	<3 U
1,2-Dichloroethane	µg/L	5.	0.5	<2.5 U	<2.4 U	<12 U	<4.8 U	<4.8 U	<2 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<2.5 U	<2.2 U	51.	<4.4 U	<4.4 U	<3 U
1,3-Dichlorobenzene	µg/L	600.	120.	<2.0 U	<2.1 U	54.	<4.2 U	<4.2 U	<3 U
1,4-Dichlorobenzene	µg/L	75.	15.	<2.0 U	<2.6 U	<13 U	<5.2 U	<5.2 U	<2.5 U
1,4-Dioxane	µg/L	3.	0.3	<350 U	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<2.5 U	<2.2 U	<11 U	<4.4 U	<4.4 U	<2 U
2-Butanone (MEK)	µg/L	4000.	800.	<25 U	<80 U	<400 U	<160 U	<160 U	<40 U
2-Chlorotoluene	µg/L	--	--	<1.5 U	<2.5 U	45.	<5.0 U	<5.0 U	<3 U
4-Chlorotoluene	µg/L	--	--	<2.0 U	<2.9 U	41 J	<5.8 U	<5.8 U	<2.5 U
Acetone	µg/L	9000.	1800.	29 JB	<130 UZ	<650 UZ	<260 UZ	<260 UZ	<45 U
Benzene	µg/L	5.	0.5	<0.90 U	<1.9 U	<9.5 U	<3.8 U	<3.8 U	<3 U
Carbon disulfide	µg/L	1000.	200.	<3.5 U	<8.0 U	<40 U	<16 U	<16 U	<5.5 U
Carbon tetrachloride	µg/L	5.	0.05	<2.5 U	<2.9 U	<15 U	<5.8 U	<5.8 U	<3 U
Chlorobenzene	µg/L	--	--	<2.0 U	6.7 J	25 J	<4.8 U	<4.8 U	3.7 J
Chloroethane	µg/L	400.	80.	<3.5 U	<4.0 U	<20 U	<8.0 U	<8.0 U	<3 U
Chloroform	µg/L	6.	0.6	<1.5 U	<3.0 U	<15 U	<6.0 U	<6.0 U	<3 U
Chloromethane	µg/L	30.	3.	<2.0 U	<4.0 U	<20 U	<8.0 U	<8.0 U	<2.5 U
cis-1,2-Dichloroethene	µg/L	70.	7.	63.	1000.	1000.	960.	950.	710.
Ethylbenzene	µg/L	700.	140.	<2.0 U	<1.9 U	26 J	<3.8 U	<3.8 U	<3 U
Hexachlorobutadiene	µg/L	--	--	<2.5 U	<7.0 U	71 J	<14 U	<14 U	<3.5 U
Isopropylbenzene	µg/L	--	--	<2.0 U	<6.0 U	41 J	<12 U	<12 U	<2.5 U
m & p-Xylene	µg/L	2000.	400.	<3.5 U	<5.0 U	46 J	<10 U	<10 U	<6 U
Methyl tert-butyl ether	µg/L	60.	12.	<2.0 U	<4.0 U	<20 U	<8.0 U	<8.0 U	<2 U
Methylene chloride	µg/L	5.	0.5	<2.5 U	<15 U	<75 U	<30 U	<30 U	<3 U
Naphthalene	µg/L	100.	10.	<1.5 U	<4.0 U	61 J	<8.0 U	<8.0 U	<2.5 U
n-Butylbenzene	µg/L	--	--	<1.5 U	<2.1 U	92.	<4.2 U	<4.2 U	<2.5 U
n-Propylbenzene	µg/L	--	--	<2.0 U	<2.2 U	53.	<4.4 U	<4.4 U	<2.5 U
o-Xylene	µg/L	2000.	400.	<2.0 U	<2.7 U	21 J	<5.4 U	<5.4 U	<2.5 U
p-Isopropyltoluene	µg/L	--	--	<2.0 U	<3.0 U	64.	<6.0 U	<6.0 U	<3 U
sec-Butylbenzene	µg/L	--	--	<2.5 U	<2.4 U	71.	<4.8 U	<4.8 U	<2.5 U
Styrene	µg/L	100.	10.	<1.5 U	<2.0 U	17 J	<4.0 U	<4.0 U	<2.5 U
tert-Butylbenzene	µg/L	--	--	<2.0 U	<2.5 U	62.	<5.0 U	<5.0 U	<3 U
Tetrachloroethene	µg/L	5.	0.05	<2.5 U	<3.0 U	28 J	<6.0 U	<6.0 U	<3 U
Tetrahydrofuran	µg/L	50.	10.	<20 U	<70 U	<350 U	<140 U	<140 U	<30 U
Toluene	µg/L	800.	160.	<2.0 U	<2.7 U	<14 U	<5.4 U	<5.4 U	<3 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<2.0 U	280.	260.	230.	240.	110.
Trichloroethene	µg/L	5.	0.5	310.	2900.	2800.	2100.	2100.	1300.
Vinyl acetate	µg/L	--	--	<11 U	<60 U	<300 U	<120 U	<120 U	<25 U
Vinyl chloride	µg/L	0.2	0.02	<0.95 U	13.	23 J	9.5 J	9.8 J	6.6

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/03/2015	5/11/2016	5/11/2016	11/1/2016	11/1/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-105S DUP	MW-105S	MW-105S Dup	MW-105S	MW-105S Dup	MW-105S
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.37	0.00	0.00	0.00	0.00	0.00
Oxidation Reduction Potential	millivolts	--	--	-47	-17	-17	-67	-66	-50
pH	pH-units	--	--	7.24	7.04	7.04	7.03	7.02	7.22
Specific Conductivity	umhos/cm	--	--	1910	1530	1520	1760	1770	944
Temperature	deg-C	--	--	20.15	12.88	12.86	9.00	9.00	9.00
Turbidity	ntu	--	--	9.5	13.4	13.9	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	410.	410.	410.	420.	420.	430.
Chloride (as Cl)	mg/L	250.	125.	410.	320.	250.	360.	360.	200.
Iron, total (unfiltered)	mg/L	--	--	2.27	2.27	2.34	3.41	4.71	3.28
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.06	2.84 M	1.51	1.54	1.55	1.45
Manganese, total (unfiltered)	µg/L	--	--	257.	174.	169.	221.	222.	166.
Manganese, dissolved (filtered)	µg/L	50.	25.	205.	175.	172.	234.	234.	163.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	2.5 J	2.3	2.3	0.6 J	1.3	<0.40 U
Ethene	µg/L	--	--	<1.2 U	0.67 J	0.68 J	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	330.	240.	230.	21.	41.	9.7
Sulfate(as SO4)	mg/L	250.	125.	56.	56.	57.	48.	48.	52.
Total Organic Carbon	mg/L	--	--	2.4	3.	3.8	2.8	2.8	3.1
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
1,1,1-Trichloroethane	µg/L	200.	40.	<3 U	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U
1,1-Dichloroethane	µg/L	850.	85.	45.	87.	78.	56.	61.	110.
1,1-Dichloroethene	µg/L	7.	0.7	8.7 J	12 J	13 J	10 J	11 J	20 J
1,2,3-Trichlorobenzene	µg/L	--	--	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<2 U	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
1,2-Dichlorobenzene	µg/L	600.	60.	<3 U	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U
1,2-Dichloroethane	µg/L	5.	0.5	<2 U	<4.0 U	<4.0 U	<5.0 U	<5.0 U	<10 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<3 U	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U
1,3-Dichlorobenzene	µg/L	600.	120.	<3 U	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U
1,4-Dichlorobenzene	µg/L	75.	15.	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	<700 U	<700 U	<1400 U
2,2-Dichloropropane	µg/L	--	--	<2 U	<4.0 U	<4.0 U	<5.0 U	<5.0 U	<10 U
2-Butanone (MEK)	µg/L	4000.	800.	<40 U	<80 U	<80 U	<50 U	<50 U	<100 U
2-Chlorotoluene	µg/L	--	--	<3 U	<6.0 U	<6.0 U	<3.0 U	<3.0 U	<6.0 U
4-Chlorotoluene	µg/L	--	--	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
Acetone	µg/L	9000.	1800.	<45 U	2900 B	3100 B	44 JB	46 JB	200 B
Benzene	µg/L	5.	0.5	<3 U	<6.0 U	<6.0 U	<1.8 U	<1.8 U	<3.6 U
Carbon disulfide	µg/L	1000.	200.	<5.5 U	<11 U	<11 U	<7.0 U	<7.0 U	<14 U
Carbon tetrachloride	µg/L	5.	0.05	<3 U	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U
Chlorobenzene	µg/L	--	--	3 J	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U
Chloroethane	µg/L	400.	80.	<3 U	<6.0 U	<6.0 U	<7.0 U	<7.0 U	<14 U
Chloroform	µg/L	6.	0.6	<3 U	<6.0 U	<6.0 U	<3.0 U	<3.0 U	<6.0 U
Chloromethane	µg/L	30.	3.	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
cis-1,2-Dichloroethene	µg/L	70.	7.	680.	980.	920.	990.	1000.	2000.
Ethylbenzene	µg/L	700.	140.	<3 U	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U
Hexachlorobutadiene	µg/L	--	--	<3.5 U	<7.0 U	<7.0 U	<5.0 U	<5.0 U	<10 U
Isopropylbenzene	µg/L	--	--	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
m & p-Xylene	µg/L	2000.	400.	<6 U	<12 U	<12 U	<7.0 U	<7.0 U	<14 U
Methyl tert-butyl ether	µg/L	60.	12.	<2 U	<4.0 U	<4.0 U	<4.0 U	<4.0 U	<8.0 U
Methylene chloride	µg/L	5.	0.5	<3 U	170.	140.	<5.0 U	<5.0 U	16 JB
Naphthalene	µg/L	100.	10.	<2.5 U	<5.0 U	<5.0 U	<3.0 U	<3.0 U	<6.0 U
n-Butylbenzene	µg/L	--	--	<2.5 U	<5.0 U	<5.0 U	<3.0 U	<3.0 U	<6.0 U
n-Propylbenzene	µg/L	--	--	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
o-Xylene	µg/L	2000.	400.	<2.5 U	<5.0 U	<5.0 U	<4.0 U	<4.0 U	<8.0 U
p-Isopropyltoluene	µg/L	--	--	<3 U	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U
sec-Butylbenzene	µg/L	--	--	<2.5 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<10 U
Styrene	µg/L	100.	10.	<2.5 U	<5.0 U	<5.0 U	<3.0 U	<3.0 U	<6.0 U
tert-Butylbenzene	µg/L	--	--	<3 U	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U
Tetrachloroethene	µg/L	5.	0.05	<3 U	<6.0 U	<6.0 U	<5.0 U	<5.0 U	<10 U
Tetrahydrofuran	µg/L	50.	10.	<30 U	<60 U	<60 U	51 JB	<40 U	150 JB
Toluene	µg/L	800.	160.	<3 U	<6.0 U	<6.0 U	<4.0 U	<4.0 U	<8.0 U
trans-1,2-Dichloroethene	µg/L	100.	20.	110.	160.	140.	100.	120.	220.
Trichloroethene	µg/L	5.	0.5	1200.	1200.	1100.	950.	1000.	1200.
Vinyl acetate	µg/L	--	--	<25 U	<50 U	<50 U	<22 U	<22 U	<44 U
Vinyl chloride	µg/L	0.2	0.02	5.6	6.4	3.0 J	4.1 J	5.2 J	7.9 J

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		5/10/2017	11/28/2017	11/28/2017	11/7/2018	12/10/2014	5/5/2015
	Units	NR140 ES	NR140 PAL	MW-105S Dup	MW-105S	MW-105S Dup	MW-105S	MW-105D	MW-105D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.00	0.00	0.56	0.43	0.00
Oxidation Reduction Potential	millivolts	--	--	-50	-43	-43	-63	-83	-69
pH	pH-units	--	--	7.22	6.74	6.74	6.96	7.65	7.30
Specific Conductivity	umhos/cm	--	--	944	1420	1420	2130	1050	1420
Temperature	deg-C	--	--	9.00	17.04	17.04	11.03	7.88	8.53
Turbidity	ntu	--	--	0.	0.	0.	43.4	0.	7.3
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	430.	440.	440.	430.	390.	390.
Chloride (as Cl)	mg/L	250.	125.	200.	410.	420.	610 M	440.	190.
Iron, total (unfiltered)	mg/L	--	--	3.22	9.98	9.51	2 M	7.44	1.78
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.46	1.13	1.16	2.02	0.924	1.77
Manganese, total (unfiltered)	µg/L	--	--	165.	196.	221.	225.	205.	58.8
Manganese, dissolved (filtered)	µg/L	50.	25.	163.	206.	209.	249.	201.	66.9
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	1.2	0.82 J	<0.80 U	<0.60 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<1.2 U	<0.90 U	<0.90 U
Methane	µg/L	--	--	15.	150.	130.	39 M	250.	59.
Sulfate(as SO4)	mg/L	250.	125.	53.	88.	93.	45.	69.	57.
Total Organic Carbon	mg/L	--	--	4.	3.4	2.9	2.2	3.3	2.
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.030 U	<0.30 U
1,1,1-Trichloroethane	µg/L	200.	40.	<10 U	<10 U	<10 U	<10 U	<0.030 U	<0.30 U
1,1-Dichloroethane	µg/L	850.	85.	110.	66.	74.	68.	11.	6.2
1,1-Dichloroethene	µg/L	7.	0.7	17 J	13 J	14 J	14 J	1.6	1.1
1,2,3-Trichlorobenzene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.040 U	<0.40 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.029 U	<0.29 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.024 U	<0.24 U
1,2-Dichlorobenzene	µg/L	600.	60.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.025 U	<0.25 U
1,2-Dichloroethane	µg/L	5.	0.5	<10 U	<10 U	<10 U	<10 U	0.16	<0.24 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<10 U	<10 U	<10 U	<10 U	<0.022 U	<0.22 U
1,3-Dichlorobenzene	µg/L	600.	120.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.021 U	<0.21 U
1,4-Dichlorobenzene	µg/L	75.	15.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.026 U	<0.26 U
1,4-Dioxane	µg/L	3.	0.3	<1400 U	<1400 U	<1400 U	<1400 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<10 U	<10 U	<10 U	<10 U	<0.022 U	<0.22 U
2-Butanone (MEK)	µg/L	4000.	800.	<100 U	<100 U	<100 U	<100 U	<0.80 U	<8.0 U
2-Chlorotoluene	µg/L	--	--	<6.0 U	<6.0 U	<6.0 U	<6.0 U	<0.025 U	<0.25 U
4-Chlorotoluene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.029 U	<0.29 U
Acetone	µg/L	9000.	1800.	180 JB	92 JB	73 JB	93 JB	<1.3 UZ	<13 UZ
Benzene	µg/L	5.	0.5	<3.6 U	<3.6 U	<3.6 U	<3.6 U	<0.019 U	<0.19 U
Carbon disulfide	µg/L	1000.	200.	<14 U	<14 U	<14 U	<14 U	<0.080 U	<0.80 U
Carbon tetrachloride	µg/L	5.	0.05	<10 U	<10 U	<10 U	<10 U	<0.029 U	<0.29 U
Chlorobenzene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.024 U	<0.24 U
Chloroethane	µg/L	400.	80.	<14 U	<14 U	<14 U	<14 U	<0.040 U	<0.40 U
Chloroform	µg/L	6.	0.6	<6.0 U	<6.0 U	9.7 J	<6.0 U	<0.030 U	<0.30 U
Chloromethane	µg/L	30.	3.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	0.061 JB	<0.40 U
cis-1,2-Dichloroethene	µg/L	70.	7.	2100.	1300.	1400.	1000.	110.	69.
Ethylbenzene	µg/L	700.	140.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.019 U	<0.19 U
Hexachlorobutadiene	µg/L	--	--	<10 U	<10 U	<10 U	<10 U	<0.070 U	<0.70 U
Isopropylbenzene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.060 U	<0.60 U
m & p-Xylene	µg/L	2000.	400.	<14 U	<14 U	<14 U	<14 U	<0.050 U	<0.50 U
Methyl tert-butyl ether	µg/L	60.	12.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	0.15	<0.40 U
Methylene chloride	µg/L	5.	0.5	13 JB	<10 U	<10 U	<10 U	<0.15 U	<1.5 U
Naphthalene	µg/L	100.	10.	<6.0 U	<6.0 U	<6.0 U	<6.0 U	<0.040 U	<0.40 U
n-Butylbenzene	µg/L	--	--	<6.0 U	<6.0 U	<6.0 U	<6.0 U	<0.021 U	<0.21 U
n-Propylbenzene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.022 U	<0.22 U
o-Xylene	µg/L	2000.	400.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.027 U	<0.27 U
p-Isopropyltoluene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.030 U	<0.30 U
sec-Butylbenzene	µg/L	--	--	<10 U	<10 U	<10 U	<10 U	<0.024 U	<0.24 U
Styrene	µg/L	100.	10.	<6.0 U	<6.0 U	<6.0 U	<6.0 U	<0.020 U	<0.20 U
tert-Butylbenzene	µg/L	--	--	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.025 U	<0.25 U
Tetrachloroethene	µg/L	5.	0.05	<10 U	<10 U	<10 U	<10 U	<0.030 U	<0.30 U
Tetrahydrofuran	µg/L	50.	10.	150 JB	<80 U	<80 U	<80 U	<0.70 U	<7.0 U
Toluene	µg/L	800.	160.	<8.0 U	<8.0 U	<8.0 U	<8.0 U	<0.027 U	<0.27 U
trans-1,2-Dichloroethene	µg/L	100.	20.	240.	200.	220.	200.	1.7	2.2
Trichloroethene	µg/L	5.	0.5	1200.	650.	740.	610.	1.4	1.8
Vinyl acetate	µg/L	--	--	<44 U	<44 U	<44 U	<44 U	<0.60 U	<6.0 U
Vinyl chloride	µg/L	0.2	0.02	6.1 J	5.4 J	7.6 J	7.8 J	2.	1.7

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	11/03/2015	5/11/2016	11/1/2016	5/10/2017	11/28/2017	11/7/2018
	Units	NR140 ES	NR140 PAL	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D	MW-105D
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.29	0.00	1.14	0.68	0.00	0.71
Oxidation Reduction Potential	millivolts	--	--	-67	-53	-82	-63	-96	-102
pH	pH-units	--	--	7.46	7.16	7.31	7.29	7.04	7.10
Specific Conductivity	umhos/cm	--	--	1120	1400	1050	1170	893	1118
Temperature	deg-C	--	--	15.53	12.41	6.90	10.59	16.28	9.67
Turbidity	ntu	--	--	5.9	48.1	0.	0.	0.	11.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	390.	420.	430.	430.	450.	430.
Chloride (as Cl)	mg/L	250.	125.	190.	210.	190.	190.	210.	210.
Iron, total (unfiltered)	mg/L	--	--	1.52	3.68	3.04	3.02	2.23	2.08
Iron, dissolved (filtered)	mg/L	0.3	0.15	1.36	1.81	1.33	1.46	1.79	2.03
Manganese, total (unfiltered)	µg/L	--	--	65.6	55.4	56.8	49.6	57.9	60.6
Manganese, dissolved (filtered)	µg/L	50.	25.	51.	53.3	57.7	46.5	59.	66.3
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.9 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.80 U
Ethene	µg/L	--	--	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.2 U
Methane	µg/L	--	--	150.	92.	58.	13.	13.	14.
Sulfate(as SO4)	mg/L	250.	125.	58.	61.	51.	52.	68.	52.
Total Organic Carbon	mg/L	--	--	1.3 J	3.8	2.4	2.7	1.5 J	1.8
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.6 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,1-Dichloroethane	µg/L	850.	85.	77.	5.8	5.1	6.4	5.6	4.7
1,1-Dichloroethene	µg/L	7.	0.7	6.9	1.1 J	1.1 J	1.6	1.3	1.
1,2,3-Trichlorobenzene	µg/L	--	--	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.4 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.6 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,2-Dichloroethane	µg/L	5.	0.5	0.93 J	<0.20 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.6 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.6 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<35 U	<35 U	<35 U	<35 U
2,2-Dichloropropane	µg/L	--	--	<0.4 U	<0.20 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
2-Butanone (MEK)	µg/L	4000.	800.	<8 U	<4.0 U	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-Chlorotoluene	µg/L	--	--	<0.6 U	<0.30 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
4-Chlorotoluene	µg/L	--	--	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Acetone	µg/L	9000.	1800.	<9 U	110 B	<1.5 U	5.2 B	4.9 JB	4.6 JB
Benzene	µg/L	5.	0.5	<0.6 U	<0.30 U	<0.090 U	<0.090 U	<0.090 U	<0.090 U
Carbon disulfide	µg/L	1000.	200.	<1.1 U	<0.55 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U
Carbon tetrachloride	µg/L	5.	0.05	<0.6 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Chlorobenzene	µg/L	--	--	<0.4 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Chloroethane	µg/L	400.	80.	1.3 J	<0.30 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U
Chloroform	µg/L	6.	0.6	<0.6 U	<0.30 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
Chloromethane	µg/L	30.	3.	<0.5 U	<0.25 U	<0.20 U	0.25 JB	<0.20 U	0.22 J
cis-1,2-Dichloroethene	µg/L	70.	7.	510.	63.	55.	68.	71.	50.
Ethylbenzene	µg/L	700.	140.	<0.6 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Hexachlorobutadiene	µg/L	--	--	<0.7 U	<0.35 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Isopropylbenzene	µg/L	--	--	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
m & p-Xylene	µg/L	2000.	400.	<1.2 U	<0.60 U	<0.35 U	<0.35 U	<0.35 U	<0.35 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.4 U	0.24 J	0.22 J	0.29 J	<0.20 U	0.24 J
Methylene chloride	µg/L	5.	0.5	<0.6 U	9.6	<0.25 U	2.6	<0.25 U	<0.25 U
Naphthalene	µg/L	100.	10.	<0.5 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
n-Butylbenzene	µg/L	--	--	<0.5 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
n-Propylbenzene	µg/L	--	--	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
o-Xylene	µg/L	2000.	400.	<0.5 U	<0.25 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
p-Isopropyltoluene	µg/L	--	--	<0.6 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
sec-Butylbenzene	µg/L	--	--	<0.5 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Styrene	µg/L	100.	10.	<0.5 U	<0.25 U	<0.15 U	<0.15 U	<0.15 U	<0.15 U
tert-Butylbenzene	µg/L	--	--	<0.6 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Tetrachloroethene	µg/L	5.	0.05	<0.6 U	<0.30 U	<0.25 U	<0.25 U	<0.25 U	<0.25 U
Tetrahydrofuran	µg/L	50.	10.	<6 U	3.1 JZ,B	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Toluene	µg/L	800.	160.	<0.6 U	<0.30 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
trans-1,2-Dichloroethene	µg/L	100.	20.	36.	1.6	1.4	1.3	1.1	0.62 J
Trichloroethene	µg/L	5.	0.5	3.5	0.56	0.78 J	0.55 J	0.43 J	0.32 J
Vinyl acetate	µg/L	--	--	<5 U	<2.5 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
Vinyl chloride	µg/L	0.2	0.02	8.3	1.7	2.	2.9	1.7	2.8

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	12/10/2014	5/5/2015	11/03/2015	5/11/2016	11/1/2016	5/10/2017
	Units	NR140 ES	NR140 PAL	MW-105B	MW-105B	MW-105B	MW-105B	MW-105B	MW-105B
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	3.53	4.60	0.40	0.00	6.49	1.15
Oxidation Reduction Potential	millivolts	--	--	-134	-31	-120	-9	-161	-50
pH	pH-units	--	--	7.86	7.18	7.71	7.57	7.58	7.52
Specific Conductivity	umhos/cm	--	--	756	945	791	764	815	784
Temperature	deg-C	--	--	7.54	8.91	13.02	18.52	6.90	10.76
Turbidity	ntu	--	--	0.	4.7	0.	4.1	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	370.	350.	380.	390.	400.	400.
Chloride (as Cl)	mg/L	250.	125.	110.	95.	90.	84.	94.	91.
Iron, total (unfiltered)	mg/L	--	--	2.82	0.311	2.8	0.389	3.7	0.171
Iron, dissolved (filtered)	mg/L	0.3	0.15	2.82	0.263	2.67 M	0.247	3.23	0.0775 J
Manganese, total (unfiltered)	µg/L	--	--	519.	461.	394.	372.	404.	18.2
Manganese, dissolved (filtered)	µg/L	50.	25.	502.	489.	313.	225.	415.	11.9
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	1.1 J	<0.60 U	1.2 J	<0.40 U	0.44 J	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	1400.	190.	2600.	470.	410.	13.
Sulfate(as SO4)	mg/L	250.	125.	<1.0 U	<1.0 U	<1 U	0.73 J	<1.0 U	<1.0 U
Total Organic Carbon	mg/L	--	--	0.90 J	0.58 J	<0.4 U	1.9	1.1 J	1.3 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	11 J	15 J
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U	<0.30 U	0.47 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	0.019 J	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.080 U	<0.11 U	<0.11 U	0.072 J	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	0.097 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	0.095 JB
cis-1,2-Dichloroethene	µg/L	70.	7.	0.081 J	0.034 J	0.075 J	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	0.67 JB,Z	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.056 J	<0.020 U	<0.03 U	<0.030 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	0.028 J	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/28/2017	11/7/2018	12/10/2014	5/5/2015	11/05/2015	5/18/2016
	Units	NR140 ES	NR140 PAL	MW-105B	MW-105B	TW-202I	TW-202I	TW-202I	TW-202I
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.67	2.63	1.40	0.37	2.55
Oxidation Reduction Potential	millivolts	--	--	-162	-173	-18	-14	-10	55
pH	pH-units	--	--	7.88	7.26	7.55	7.48	6.86	7.02
Specific Conductivity	umhos/cm	--	--	622	777	1040	1180	980	1190
Temperature	deg-C	--	--	16.13	9.60	8.66	11.28	14.54	11.28
Turbidity	ntu	--	--	0.	0.4	8.31	24.3	12.2	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	410.	400.	350.	310.	350.	370.
Chloride (as Cl)	mg/L	250.	125.	110.	82.	230.	290.	230.	260.
Iron, total (unfiltered)	mg/L	--	--	3.98	3.04	0.258	0.29	0.325	0.169
Iron, dissolved (filtered)	mg/L	0.3	0.15	3.66	3.3	0.103	0.0537	0.107	0.126
Manganese, total (unfiltered)	µg/L	--	--	411.	338.	563.	543.	591.	486.
Manganese, dissolved (filtered)	µg/L	50.	25.	425.	349.	410.	468.	515.	448.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.80 U	<0.60 U	<0.60 U	<0.9 U	<0.40 U
Ethene	µg/L	--	--	<0.50 U	<1.2 U	<0.90 U	<0.90 U	<1.2 U	<0.50 U
Methane	µg/L	--	--	120.	150.	3.1	5.	2.6	4.4
Sulfate(as SO4)	mg/L	250.	125.	<1.0 U	<0.80 U	55.	44.	39.	51.
Total Organic Carbon	mg/L	--	--	0.63 J	0.79 J	2.9	2.	0.76 J	3.6
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.05 U	<0.050 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U	0.32	0.29	0.27	0.24
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U	0.1	0.1	0.082 J	0.13 J
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U	0.08 J	0.067 J	0.072 J	0.092 J
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.04 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.04 U	<0.040 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.06 U	<0.060 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	0.11	0.046 J	<0.06 U	<0.060 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.026 U	<0.026 U	<0.05 U	<0.050 U
1,4-Dioxane	µg/L	3.	0.3	13 JZ	<7.0 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.022 U	<0.022 U	<0.04 U	<0.040 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.80 U	<0.80 U	<0.8 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.029 U	<0.029 U	<0.05 U	<0.050 U
Acetone	µg/L	9000.	1800.	0.43 JB	0.37 JB	<1.3 UZ	<1.3 UZ	<0.9 U	<0.90 U
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Carbon disulfide	µg/L	1000.	200.	0.076 J	<0.070 U	<0.080 U	<0.080 U	<0.11 U	<0.11 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.029 U	<0.029 U	<0.06 U	<0.060 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	0.55	0.54	0.61	0.45
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.040 U	<0.040 U	<0.06 U	<0.060 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.15	0.06 JB	<0.040 U	<0.05 U	0.13 J
cis-1,2-Dichloroethene	µg/L	70.	7.	0.07 J	<0.070 U	11.	12.	8.6	19.
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.019 U	<0.019 U	<0.06 U	<0.060 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.070 U	<0.070 U	<0.07 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.060 U	<0.060 U	<0.05 U	<0.050 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.050 U	<0.050 U	<0.12 U	<0.12 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.04 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.15 U	<0.15 U	<0.06 U	<0.060 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.040 U	<0.040 U	<0.05 U	<0.050 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.021 U	<0.021 U	<0.05 U	<0.050 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.022 U	<0.022 U	<0.05 U	<0.050 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.05 U	<0.050 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.024 U	<0.024 U	<0.05 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.020 U	<0.020 U	<0.05 U	<0.050 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.025 U	<0.025 U	<0.06 U	<0.060 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.030 U	<0.030 U	<0.06 U	<0.060 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.70 U	<0.70 U	<0.6 U	<0.60 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.027 U	<0.027 U	<0.06 U	<0.060 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	1.	1.	0.98	1.5
Trichloroethene	µg/L	5.	0.5	<0.050 U	<0.050 U	13.	12.	11.	12.
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.60 U	<0.60 U	<0.5 U	<0.50 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	0.023 J	0.023 J	0.022 J	<0.016 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	11/1/2016	5/9/2017	11/29/2017	11/8/2018	12/11/2014	5/6/2015
	Units	NR140 ES	NR140 PAL	TW-202I	TW-202I	TW-202I	TW-202I	OW-6	OW-6
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.34	0.00	0.82	0.53	0.38
Oxidation Reduction Potential	millivolts	--	--	-29	45	-47	-55	-119	-34
pH	pH-units	--	--	6.93	7.34	7.57	7.07	7.34	6.74
Specific Conductivity	umhos/cm	--	--	1230	1520	761	990	731	743
Temperature	deg-C	--	--	8.14	10.07	17.72	12.04	8.73	9.88
Turbidity	ntu	--	--	0.	0.	0.	27.2	3.73	1.2
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	380.	390.	360.	360.	220.	260.
Chloride (as Cl)	mg/L	250.	125.	210.	210.	190.	170.	160.	160.
Iron, total (unfiltered)	mg/L	--	--	0.191	0.144	0.176	0.531	1.16	0.299
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.122 J	0.107 J	<0.059 U	0.11 J	0.477	0.177
Manganese, total (unfiltered)	µg/L	--	--	441.	371.	424.	277.	46.4	85.1
Manganese, dissolved (filtered)	µg/L	50.	25.	431.	328.	379.	387.	41.3	72.4
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.40 U	<0.40 U	<0.80 U	<0.60 U	<0.60 U
Ethene	µg/L	--	--	<0.50 U	<0.50 U	<0.50 U	<1.2 U	<0.90 U	<0.90 U
Methane	µg/L	--	--	2.7	0.4 J	1.8	1.2	99.	210.
Sulfate(as SO4)	mg/L	250.	125.	39.	38.	32.	26.	9.2	5.6
Total Organic Carbon	mg/L	--	--	2.6	3.5	2.	1.9	0.99 JY	0.4 J
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U
1,1,1-Trichloroethane	µg/L	200.	40.	0.25	0.22	0.23	0.14 J	<0.030 U	<0.030 U
1,1-Dichloroethane	µg/L	850.	85.	0.14 J	0.15 J	<0.060 U	0.06 J	0.082	0.087
1,1-Dichloroethene	µg/L	7.	0.7	0.079 J	0.086 J	<0.060 U	<0.060 U	<0.024 U	<0.024 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U	<0.040 U	0.094 J	<0.024 U	<0.024 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.025 J	0.029 J
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U	<0.040 U	0.84	0.14	0.056 J
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U	<0.040 U	0.62	<0.026 U	<0.026 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U	<7.0 U	<7.0 U	NA	NA
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.022 U	<0.022 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<0.80 U	<0.80 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.025 U	<0.025 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.029 U	<0.029 U
Acetone	µg/L	9000.	1800.	<0.30 U	0.47 JB	0.31 JB	0.47 JB	<1.3 UZ	<1.3 UZ
Benzene	µg/L	5.	0.5	0.023 J	0.023 J	<0.018 U	0.021 J	<0.019 U	<0.019 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.080 U	<0.080 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.029 U	<0.029 U
Chlorobenzene	µg/L	--	--	0.56	0.47	0.51	0.39	<0.024 U	<0.024 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U	<0.070 U	<0.070 U	<0.040 U	<0.040 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.13 JB	<0.040 U	0.19	0.08 JB	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	17.	20.	11.	6.3	0.056 J	0.12
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.019 U	<0.019 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.070 U	<0.070 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.060 U	<0.060 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U	<0.070 U	0.11 J	<0.050 U	<0.050 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.15 U	<0.15 U
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	0.13	<0.040 U	<0.040 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.021 U	<0.021 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.022 U	<0.022 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U	<0.040 U	0.058 J	<0.027 U	<0.027 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.030 U	<0.030 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.024 U	<0.024 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U	<0.030 U	<0.030 U	<0.020 U	<0.020 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.025 U	<0.025 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U	<0.050 U	<0.050 U	0.04 J	<0.030 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U	<0.40 U	<0.40 U	<0.70 U	<0.70 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U	<0.040 U	0.063 J	<0.027 U	<0.027 U
trans-1,2-Dichloroethene	µg/L	100.	20.	1.2	0.97	0.6	0.47	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	11.	12.	11.	8.	0.042 J	<0.020 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U	<0.22 U	<0.22 U	<0.60 U	<0.60 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	11/04/2015	5/18/2016	11/2/2016	5/10/2017	11/29/2017	11/9/2018
	Units	NR140 ES	NR140 PAL	OW-06	OW-6	OW-6	OW-6	OW-6	OW-6
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	0.24	3.40	0.44	0.12	0.00	0.43
Oxidation Reduction Potential	millivolts	--	--	-150	163	-166	11	-120	-111
pH	pH-units	--	--	9.51	9.18	7.48	7.72	7.73	6.91
Specific Conductivity	umhos/cm	--	--	485	637	951	778	876	952
Temperature	deg-C	--	--	18.83	12.40	9.64	10.56	16.74	10.87
Turbidity	ntu	--	--	0.	0.	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	190.	240.	350.	310.	350.	310.
Chloride (as Cl)	mg/L	250.	125.	120.	130.	150.	140.	190.	120.
Iron, total (unfiltered)	mg/L	--	--	0.13	0.416	4.	0.534	6.26	1.2
Iron, dissolved (filtered)	mg/L	0.3	0.15	0.0923	<0.010 U	3.97	<0.059 U	5.93	0.971
Manganese, total (unfiltered)	µg/L	--	--	9.9	16.6	76.4	50.4	77.	25.6
Manganese, dissolved (filtered)	µg/L	50.	25.	6.3	4.8 J	78.6	8.3	80.	22.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.9 U	<0.40 U	0.53 J	<0.40 U	0.44 J	<0.80 U
Ethene	µg/L	--	--	<1.2 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.2 U
Methane	µg/L	--	--	36.	54.	65.	39.	420.	16.
Sulfate(as SO4)	mg/L	250.	125.	8.2	9.7	26.	28.	39.	23.
Total Organic Carbon	mg/L	--	--	<0.4 U	0.53 J	0.89 J	2.	0.72 J	<0.40 U
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.06 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.07 U	<0.070 U	<0.060 U	<0.060 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	0.075 J	0.091 J	0.05 J	<0.040 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	<7.0 U	9.9 J	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.04 U	<0.040 U	<0.050 U	<0.050 U	<0.050 U	0.056 J
2-Butanone (MEK)	µg/L	4000.	800.	<0.8 U	<0.80 U	<0.50 U	<0.50 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<0.9 U	<0.90 U	<0.30 U	0.97 JB	0.47 JB	0.33 JB
Benzene	µg/L	5.	0.5	<0.06 U	<0.060 U	0.021 J	<0.018 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.11 U	<0.11 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.06 U	<0.060 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.06 U	<0.060 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.05 U	0.17 J	0.085 J	0.17 B	<0.040 U	0.089 J
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.06 U	<0.060 U	0.078 J	<0.070 U	0.15 J	0.08 J
Ethylbenzene	µg/L	700.	140.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.07 U	<0.070 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.12 U	<0.12 U	<0.070 U	<0.070 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.04 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.05 U	<0.050 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.05 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.05 U	<0.050 U	<0.030 U	<0.030 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.06 U	<0.060 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.6 U	<0.60 U	<0.40 U	<0.40 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.06 U	<0.060 U	<0.040 U	<0.040 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	<0.03 U	<0.030 U	<0.050 U	<0.050 U	<0.050 U	<0.050 U
Vinyl acetate	µg/L	--	--	<0.5 U	<0.50 U	<0.22 U	<0.22 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.016 U	<0.016 U	<0.019 U	<0.019 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

			Date Sampled	12/15/2014	5/7/2015	11/04/2015	5/10/2016	11/3/2016	5/11/2017
	Units	NR140 ES	NR140 PAL	MW-14DR	MW-14DR	MW-14DR	MW-14DR	MW-14DR	MW-14DR
Field Parameters									
Dissolved Oxygen (DO)	mg/L	--	--	11.86	0.00	0.22	5.74	0.00	0.63
Oxidation Reduction Potential	millivolts	--	--	94	66	-24	213	105	222
pH	pH-units	--	--	7.57	6.69	7.34	6.65	7.16	7.15
Specific Conductivity	umhos/cm	--	--	917	840	887	841	1000	829
Temperature	deg-C	--	--	10.03	11.49	14.02	10.40	7.40	12.53
Turbidity	ntu	--	--	79.5	0.4	0.	0.	0.	0.
Natural Attenuation Parameters									
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	310.	290.	340.	350.	360.	340.
Chloride (as Cl)	mg/L	250.	125.	140 M	170.	190.	190.	160.	150.
Iron, total (unfiltered)	mg/L	--	--	0.252 M	0.0672	0.196	<0.020 U	0.0897 J	0.172
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.010 U	0.0233 J	0.135	<0.010 U	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	5.2 M	205.	310.	182.	233.	190.
Manganese, dissolved (filtered)	µg/L	50.	25.	123.	113.	200.	92.8	128.	85.8
Acetylene	µg/L	--	--	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.60 U	<0.60 U	<0.9 U	<0.40 U	<0.40 U	<0.40 U
Ethene	µg/L	--	--	<0.90 U	<0.90 U	<1.2 U	<0.50 U	<0.50 U	<0.50 U
Methane	µg/L	--	--	0.37 J	<0.30 U	0.44 J	<0.40 U	0.44 J	<0.40 U
Sulfate(as SO4)	mg/L	250.	125.	40.	36.	41.	38.	25.	24.
Total Organic Carbon	mg/L	--	--	5.	1.7	1.4 J	3.3	2.2	4.4
VOCs									
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.030 U	<0.030 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.024 U	<0.024 U	<0.06 U	<0.060 U	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.024 U	<0.024 U	<0.07 U	<0.070 U	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.029 U	<0.029 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.022 U	<0.022 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.021 U	<0.021 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.026 U	<0.026 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	NA	NA	NA	NA	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.022 U	<0.022 U	<0.04 U	<0.040 U	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.80 U	<0.80 U	<0.8 U	<0.80 U	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.029 U	<0.029 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<1.3 UZ	<1.3 U	<0.9 U	<0.90 U	<0.30 U	0.38 JB
Benzene	µg/L	5.	0.5	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.080 U	<0.080 U	<0.11 U	<0.11 U	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.029 U	<0.029 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	0.081 JB	<0.040 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
cis-1,2-Dichloroethene	µg/L	70.	7.	0.074 J	0.053 J	<0.06 U	<0.060 U	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.019 U	<0.019 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.070 U	<0.070 U	<0.07 U	<0.070 U	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.060 U	<0.060 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.050 U	<0.050 U	<0.12 U	<0.12 U	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U	<0.04 U	<0.040 U	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.15 U	<0.15 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Naphthalene	µg/L	100.	10.	<0.040 U	<0.040 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.021 U	<0.021 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.022 U	<0.022 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.027 U	<0.027 U	<0.05 U	<0.050 U	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.024 U	<0.024 U	<0.05 U	<0.050 U	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.020 U	<0.020 U	<0.05 U	<0.050 U	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.025 U	<0.025 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.030 U	<0.030 U	<0.06 U	<0.060 U	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.70 U	<0.70 U	<0.6 U	<0.60 U	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.027 U	<0.027 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U	<0.06 U	<0.060 U	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.3	0.19	0.2	0.16	0.061 J	0.18
Vinyl acetate	µg/L	--	--	<0.60 U	<0.60 U	<0.5 U	<0.50 U	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U	<0.016 U	<0.016 U	<0.019 U	<0.019 U

Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

		Date Sampled		11/29/2017	11/15/2018
	Units	NR140 ES	NR140 PAL	MW-14DR	MW-14DR
Field Parameters					
Dissolved Oxygen (DO)	mg/L	--	--	0.00	0.66
Oxidation Reduction Potential	millivolts	--	--	23	39
pH	pH-units	--	--	7.41	7.04
Specific Conductivity	umhos/cm	--	--	663	1072
Temperature	deg-C	--	--	17.20	11.36
Turbidity	ntu	--	--	0.	0.
Natural Attenuation Parameters					
Alkalinity, total (as $CaCO_3$)	mg/L	--	--	330.	320.
Chloride (as Cl)	mg/L	250.	125.	140.	210.
Iron, total (unfiltered)	mg/L	--	--	<0.034 U	0.0419 J
Iron, dissolved (filtered)	mg/L	0.3	0.15	<0.059 U	<0.059 U
Manganese, total (unfiltered)	µg/L	--	--	168.	124.
Manganese, dissolved (filtered)	µg/L	50.	25.	111.	102.
Acetylene	µg/L	--	--	<0.23 U	<0.23 U
Ethane	µg/L	--	--	<0.40 U	<0.80 U
Ethene	µg/L	--	--	<0.50 U	<1.2 U
Methane	µg/L	--	--	44.	3.2
Sulfate(as SO4)	mg/L	250.	125.	15.	12.
Total Organic Carbon	mg/L	--	--	2.1	2.5
VOCs					
1,1,1,2-Tetrachloroethane	µg/L	70.	7.	<0.040 U	<0.040 U
1,1,1-Trichloroethane	µg/L	200.	40.	<0.050 U	<0.050 U
1,1-Dichloroethane	µg/L	850.	85.	<0.060 U	<0.060 U
1,1-Dichloroethene	µg/L	7.	0.7	<0.060 U	<0.060 U
1,2,3-Trichlorobenzene	µg/L	--	--	<0.040 U	<0.040 U
1,2,4-Trichlorobenzene	µg/L	70.	14.	<0.040 U	<0.040 U
1,2,4-Trimethylbenzene	µg/L	480.	96.	<0.040 U	<0.040 U
1,2-Dichlorobenzene	µg/L	600.	60.	<0.040 U	<0.040 U
1,2-Dichloroethane	µg/L	5.	0.5	<0.050 U	<0.050 U
1,3,5-Trimethylbenzene	µg/L	480.	96.	<0.050 U	<0.050 U
1,3-Dichlorobenzene	µg/L	600.	120.	<0.040 U	<0.040 U
1,4-Dichlorobenzene	µg/L	75.	15.	<0.040 U	<0.040 U
1,4-Dioxane	µg/L	3.	0.3	<7.0 U	<7.0 U
2,2-Dichloropropane	µg/L	--	--	<0.050 U	<0.050 U
2-Butanone (MEK)	µg/L	4000.	800.	<0.50 U	<0.50 U
2-Chlorotoluene	µg/L	--	--	<0.030 U	<0.030 U
4-Chlorotoluene	µg/L	--	--	<0.040 U	<0.040 U
Acetone	µg/L	9000.	1800.	<0.30 U	0.31 JB
Benzene	µg/L	5.	0.5	<0.018 U	<0.018 U
Carbon disulfide	µg/L	1000.	200.	<0.070 U	<0.070 U
Carbon tetrachloride	µg/L	5.	0.05	<0.050 U	<0.050 U
Chlorobenzene	µg/L	--	--	<0.040 U	<0.040 U
Chloroethane	µg/L	400.	80.	<0.070 U	<0.070 U
Chloroform	µg/L	6.	0.6	<0.030 U	<0.030 U
Chloromethane	µg/L	30.	3.	<0.040 U	0.077 J
cis-1,2-Dichloroethene	µg/L	70.	7.	<0.070 U	<0.070 U
Ethylbenzene	µg/L	700.	140.	<0.040 U	<0.040 U
Hexachlorobutadiene	µg/L	--	--	<0.050 U	<0.050 U
Isopropylbenzene	µg/L	--	--	<0.040 U	<0.040 U
m & p-Xylene	µg/L	2000.	400.	<0.070 U	<0.070 U
Methyl tert-butyl ether	µg/L	60.	12.	<0.040 U	<0.040 U
Methylene chloride	µg/L	5.	0.5	<0.050 U	<0.050 UZYQ
Naphthalene	µg/L	100.	10.	<0.030 U	<0.030 U
n-Butylbenzene	µg/L	--	--	<0.030 U	<0.030 U
n-Propylbenzene	µg/L	--	--	<0.040 U	<0.040 U
o-Xylene	µg/L	2000.	400.	<0.040 U	<0.040 U
p-Isopropyltoluene	µg/L	--	--	<0.040 U	<0.040 U
sec-Butylbenzene	µg/L	--	--	<0.050 U	<0.050 U
Styrene	µg/L	100.	10.	<0.030 U	<0.030 U
tert-Butylbenzene	µg/L	--	--	<0.040 U	<0.040 U
Tetrachloroethene	µg/L	5.	0.05	<0.050 U	<0.050 U
Tetrahydrofuran	µg/L	50.	10.	<0.40 U	<0.40 U
Toluene	µg/L	800.	160.	<0.040 U	<0.040 U
trans-1,2-Dichloroethene	µg/L	100.	20.	<0.040 U	<0.040 U
Trichloroethene	µg/L	5.	0.5	0.12 J	<0.050 U
Vinyl acetate	µg/L	--	--	<0.22 U	<0.22 U
Vinyl chloride	µg/L	0.2	0.02	<0.019 U	<0.019 U

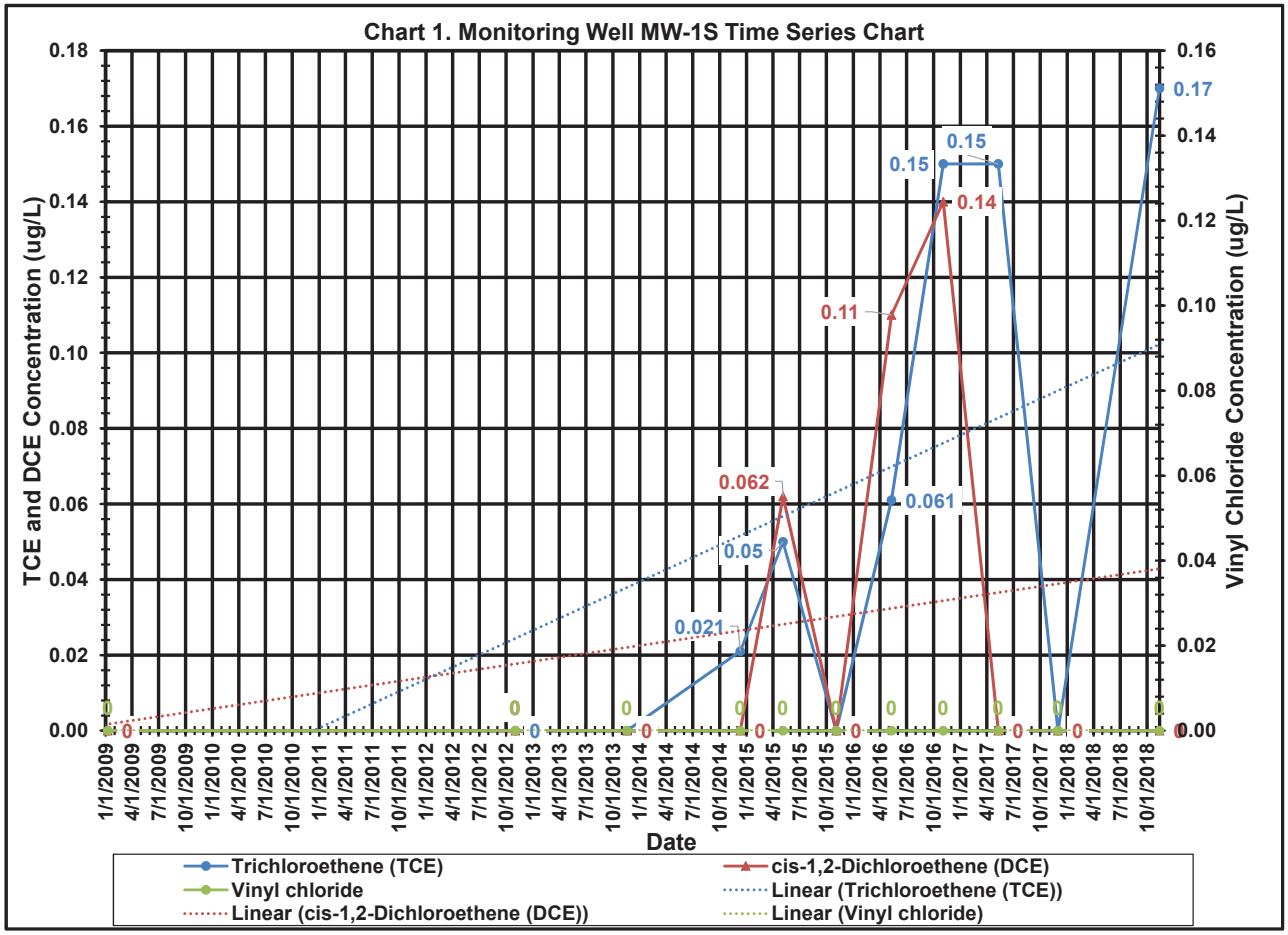
Table 3. Groundwater Quality Data, Oconomowoc Electroplating Company Inc. (OECI) Superfund Site Monitoring Wells

Notes:
mg/L: milligrams per liter
umhos/cm: micromhos per centimeter
deg-C: degress Celsius
ntu: nephelometric turbidity units
µg/L: micrograms per liter
NA: Not Analyzed
NR140 ES: Chapter NR140 Wisconsin Administrative Enforcement Standard
NR140 PAL: Chapter NR140 Wisconsin Administrative Code Preventive Action Limit
Dup: Duplicate sample

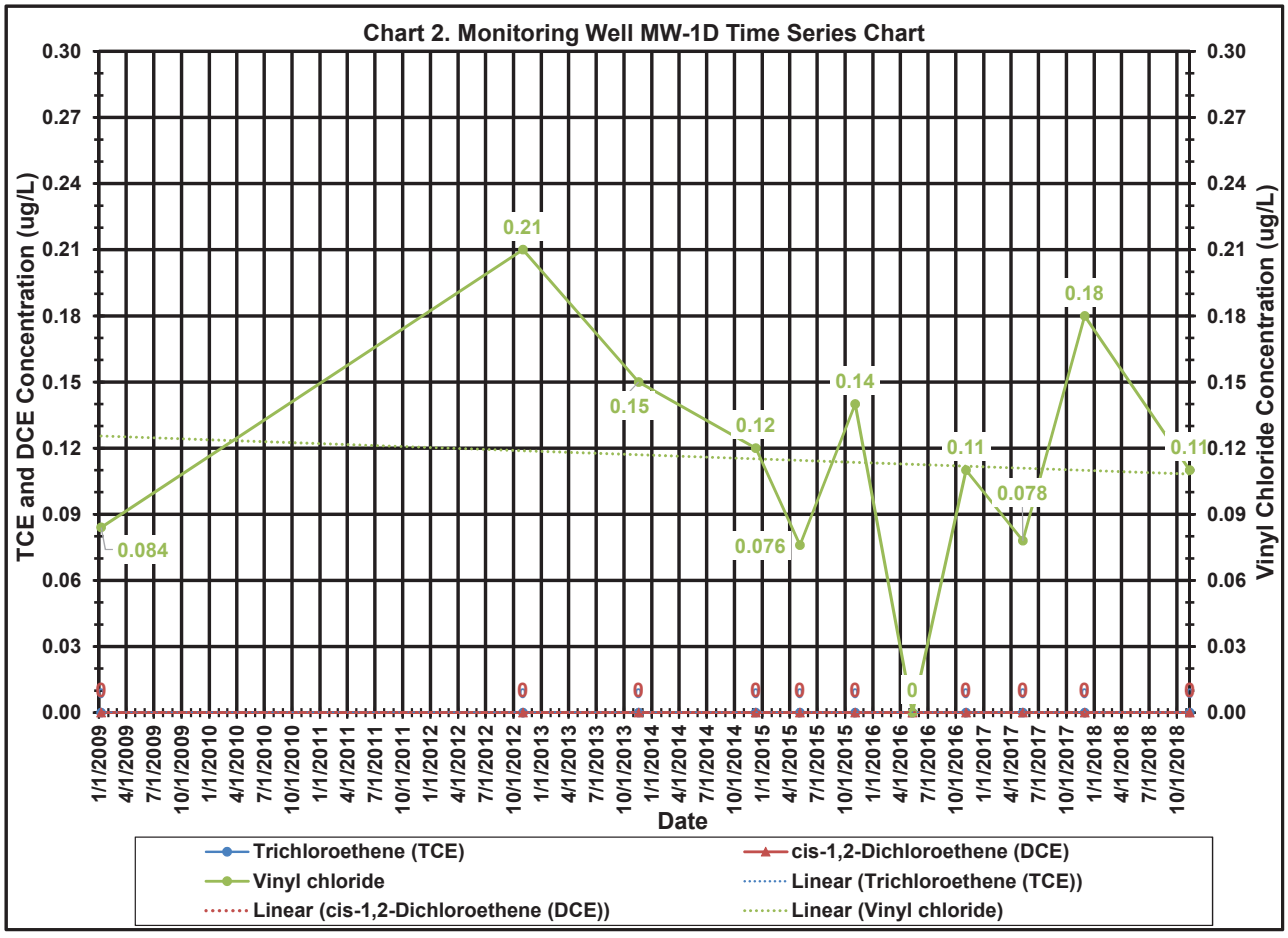
Laboratory Quality Control Qualifiers
B: Analyte detected in the associated Method Blank.
D: Diluted Out.
H: Holding time exceeded.
J: Estimated value.
M: Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
Q: Laboratory Control Sample outside acceptance limits.
U: Analyte concentration was below detection limit.
Y: Replicate/Duplicate precision outside acceptance limits.
Z: Specified calibration criteria was not met.

APPENDIX E

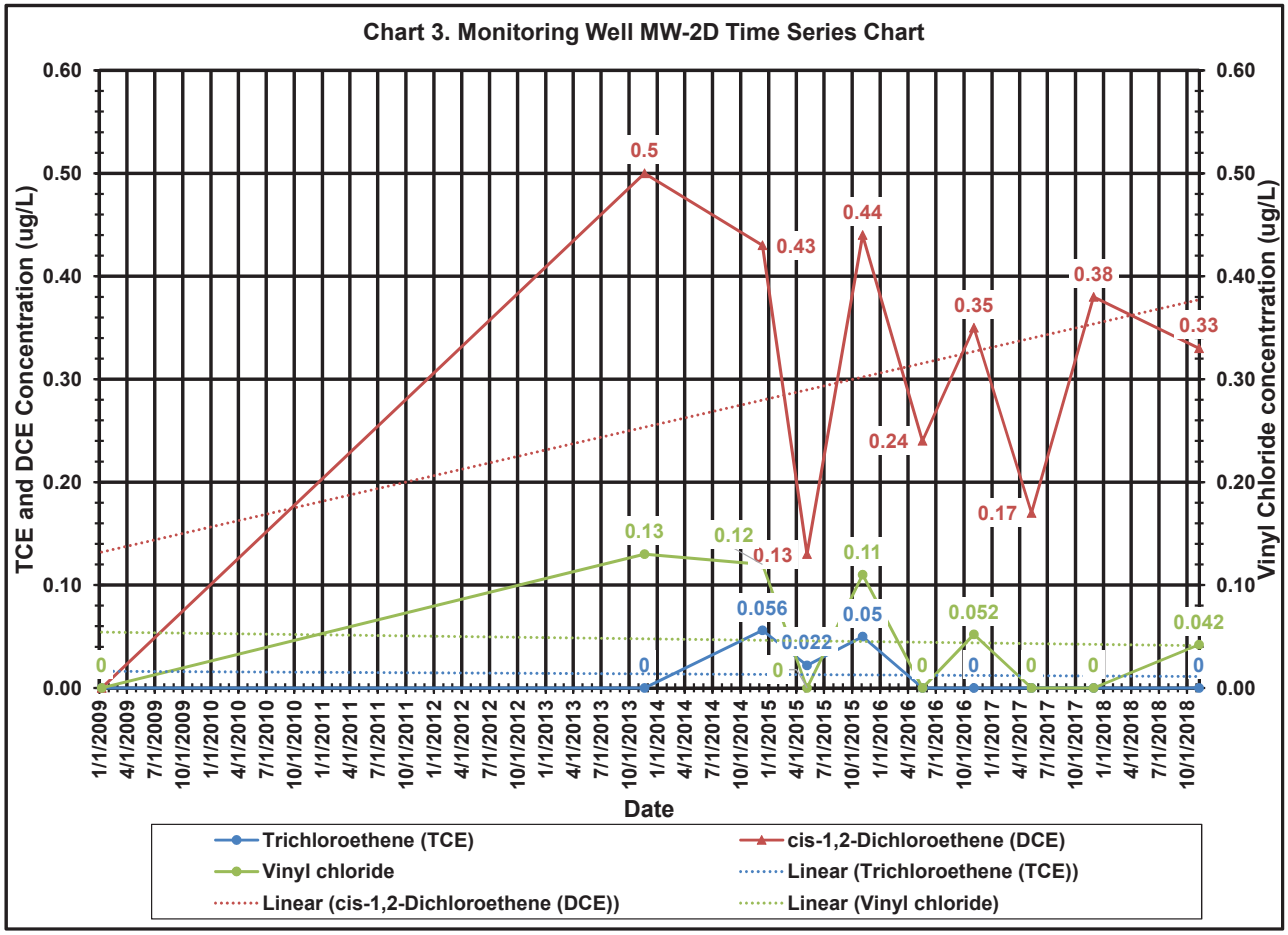
Groundwater Monitoring Well Time Series Chart



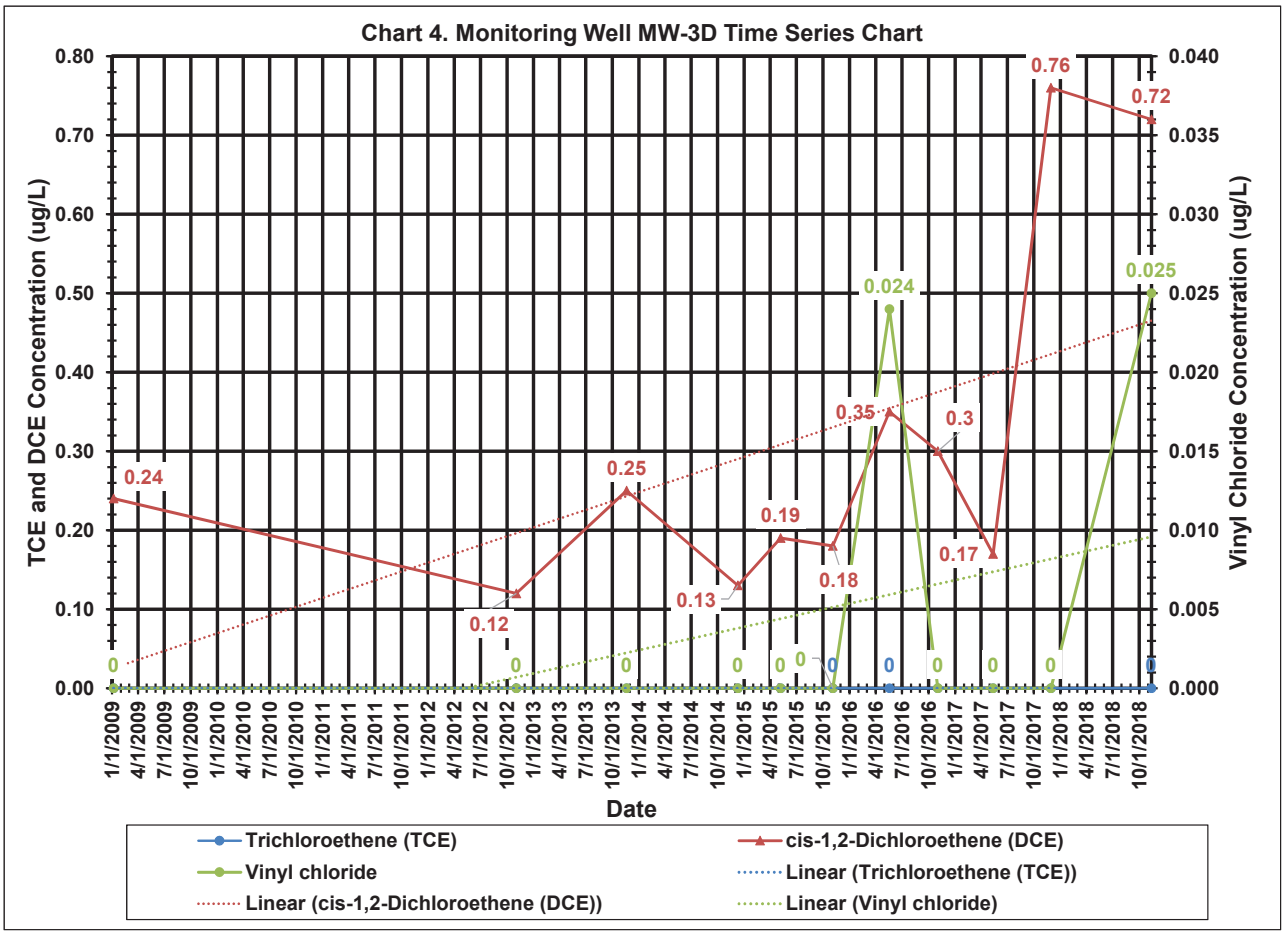
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

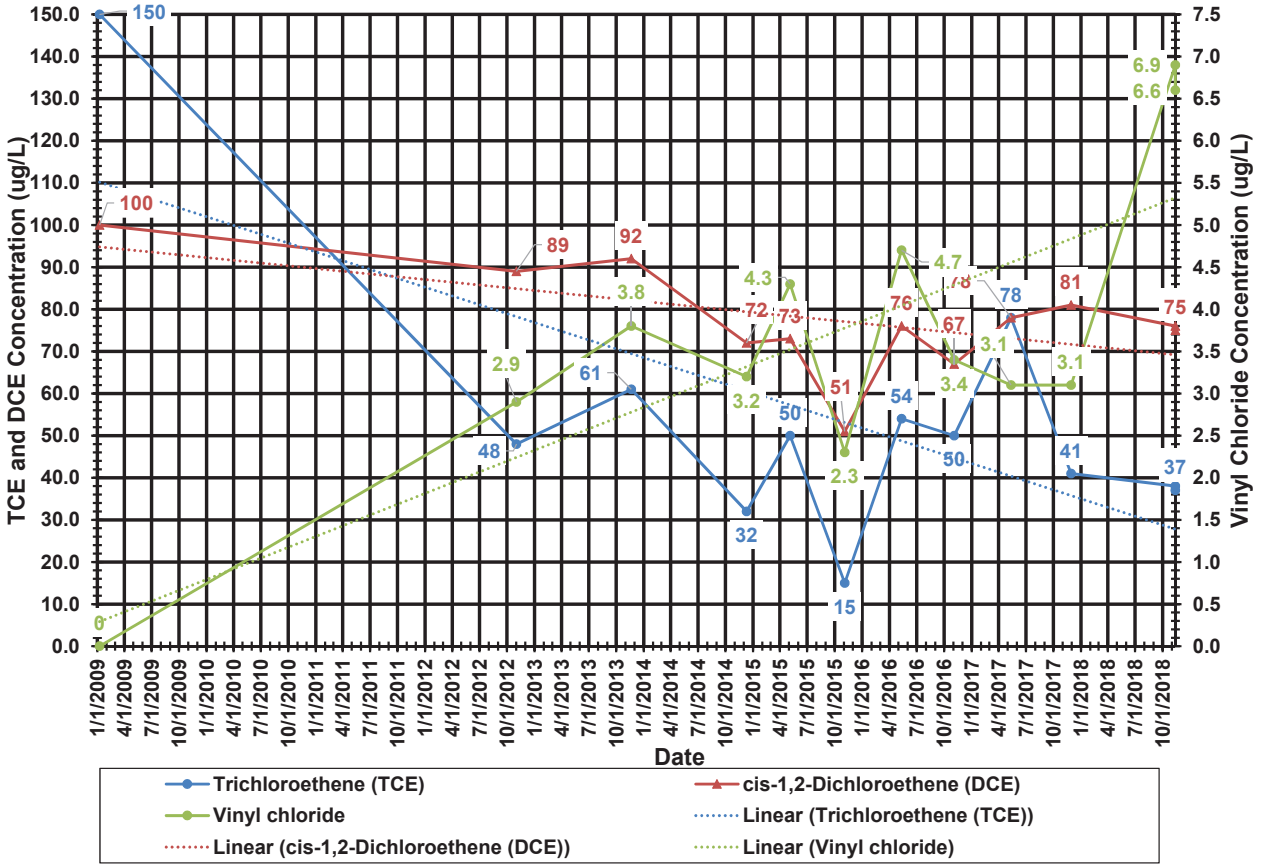


Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



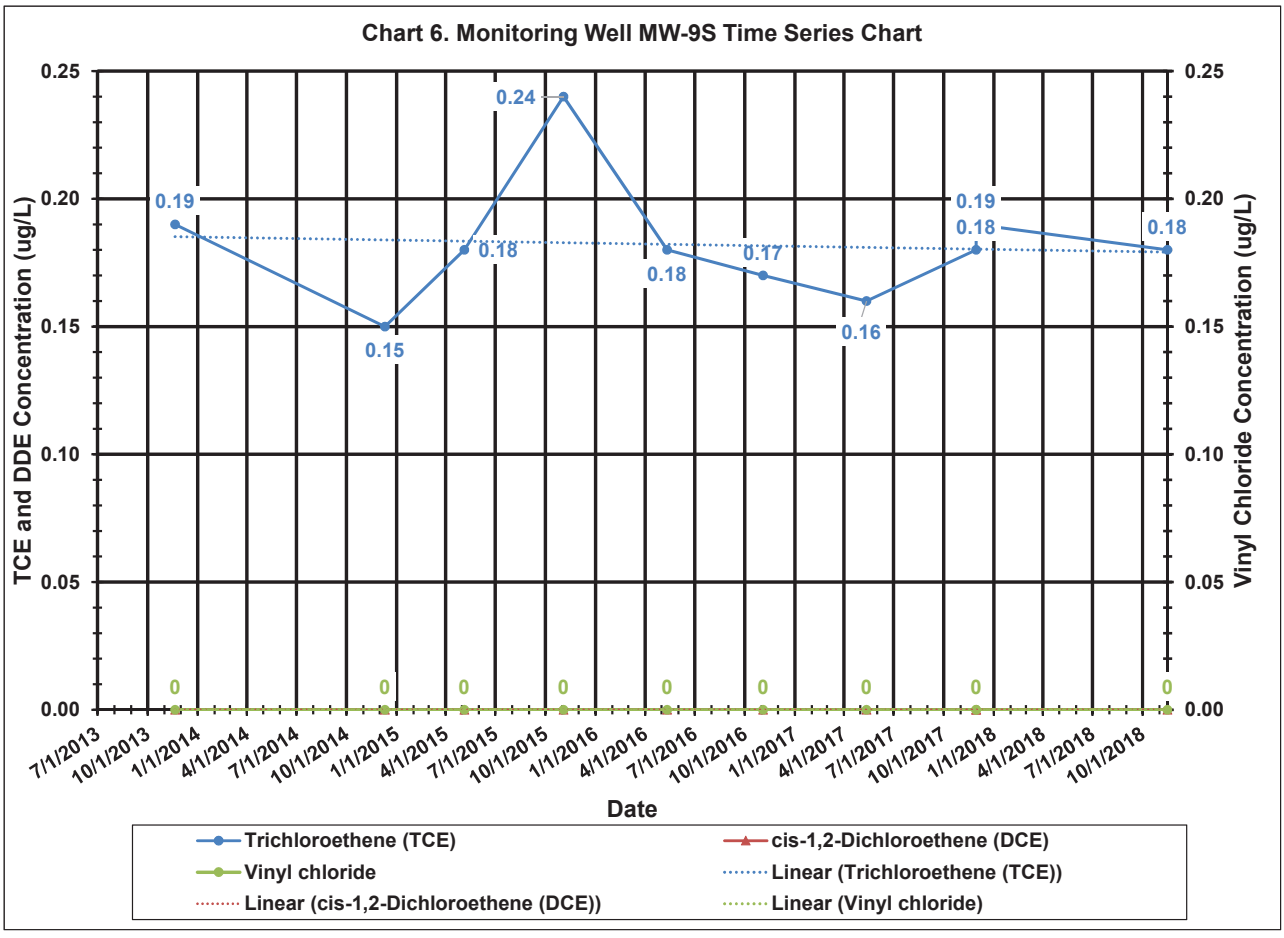
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

Chart 5. Monitoring Well MW-5D Time Series Chart

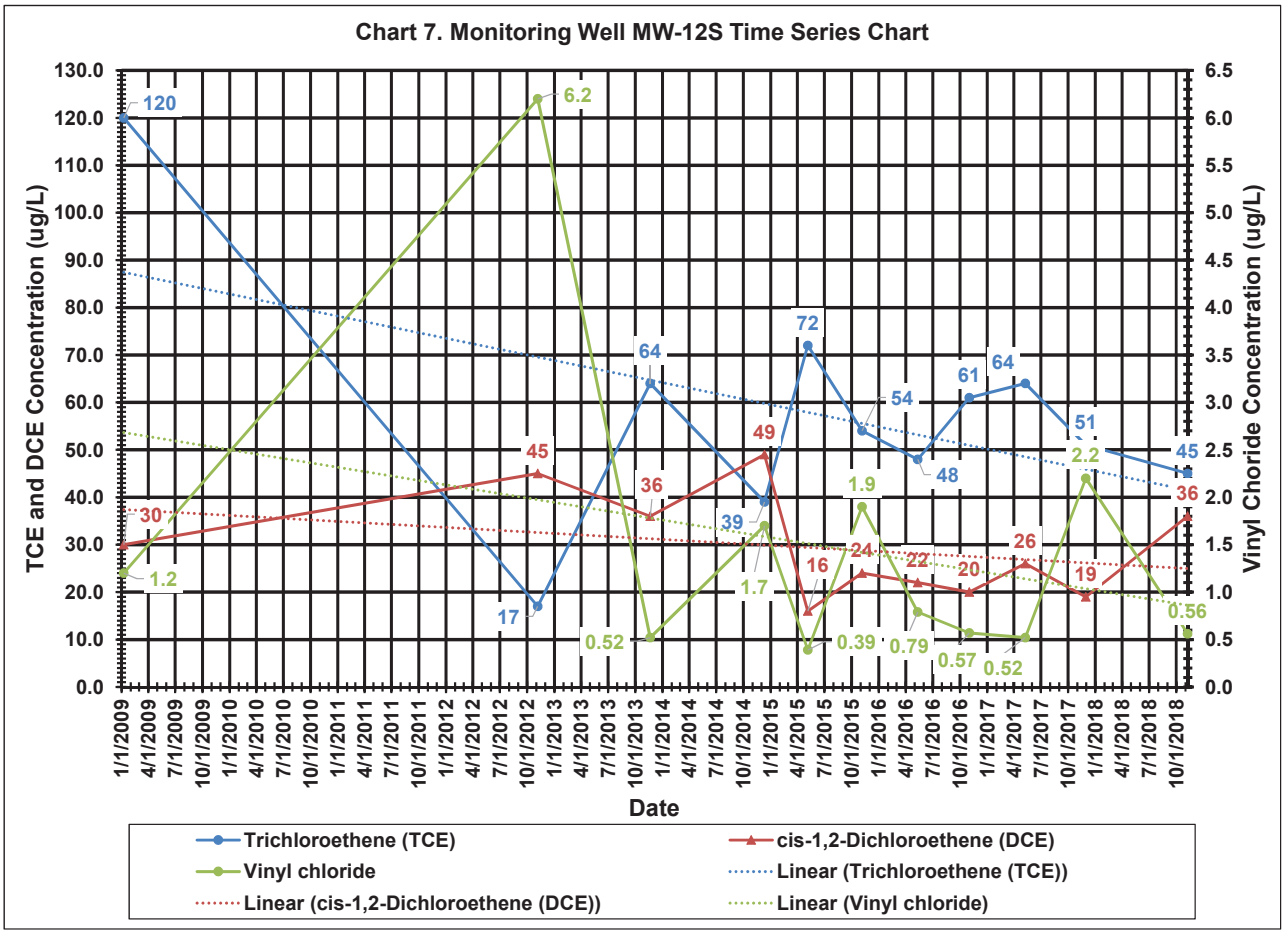


Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

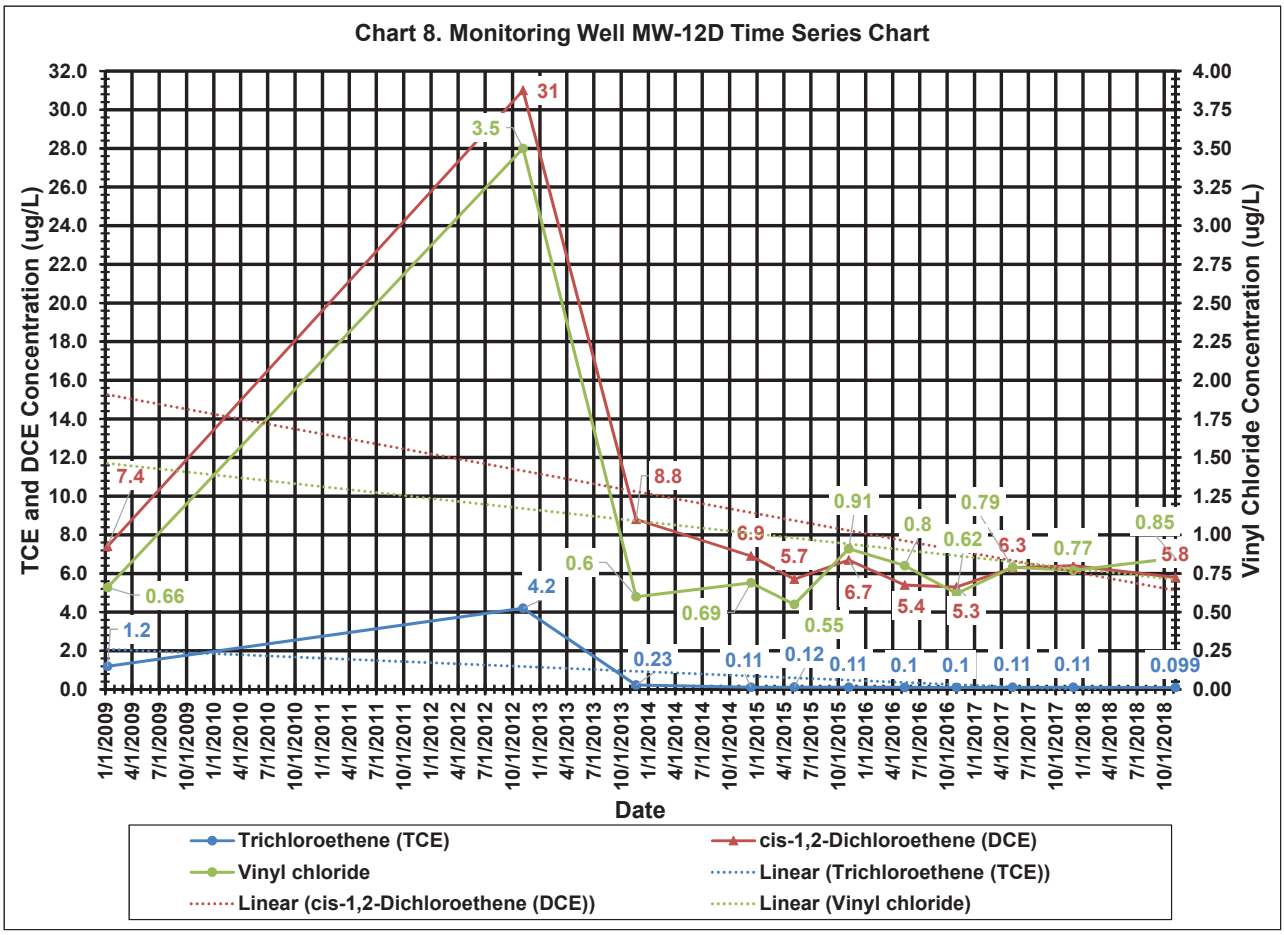
Chart 6. Monitoring Well MW-9S Time Series Chart



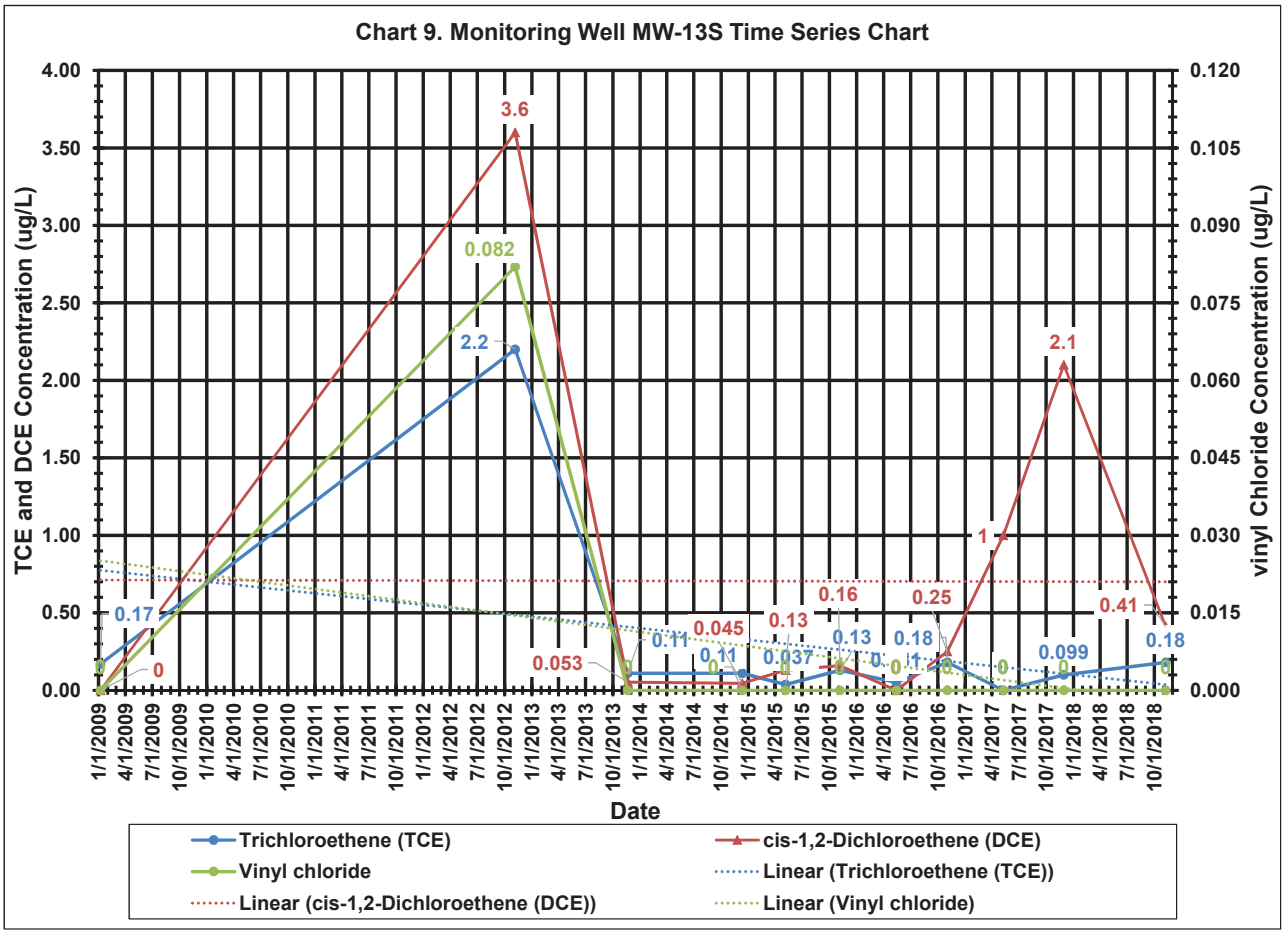
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



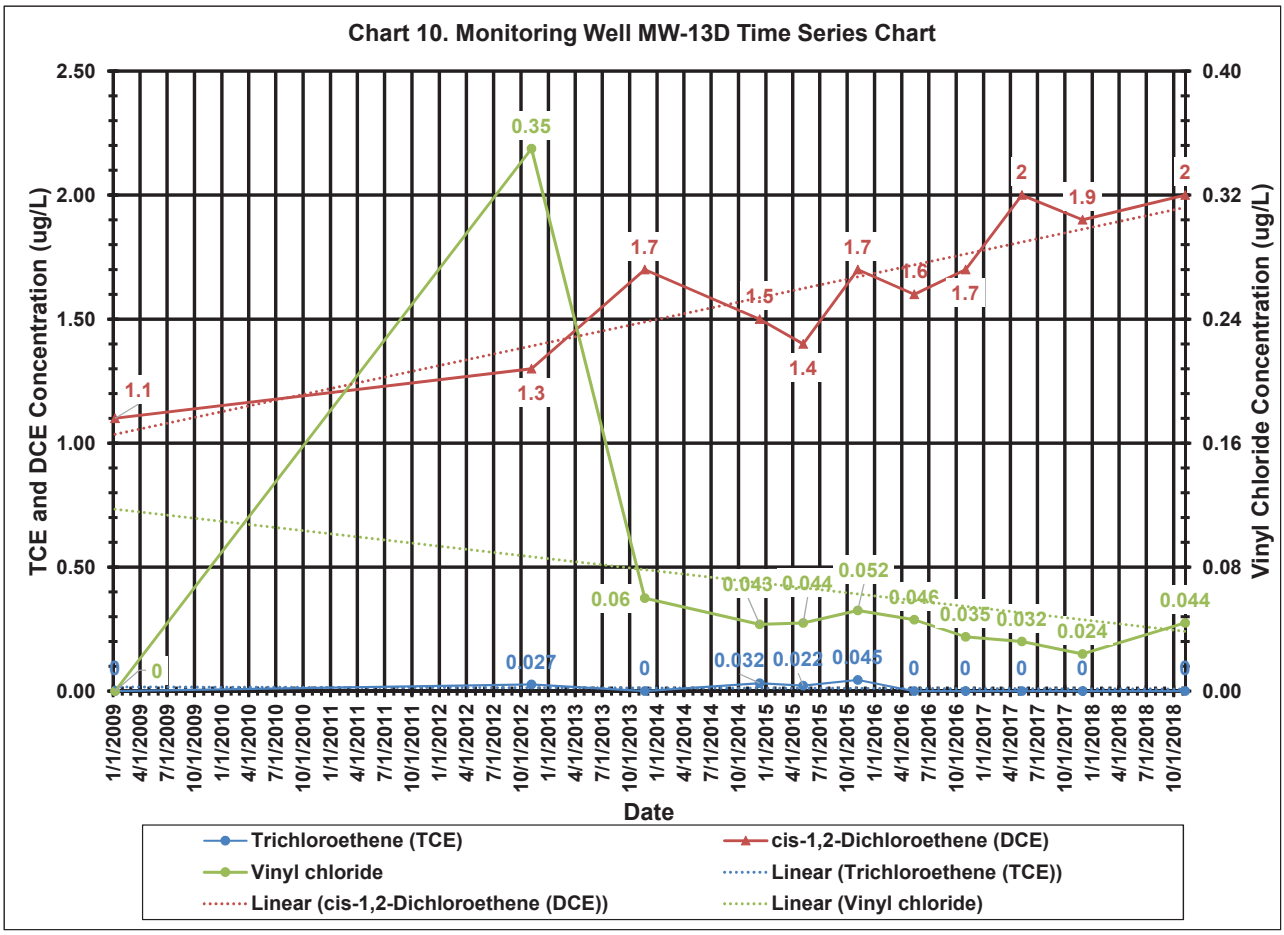
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



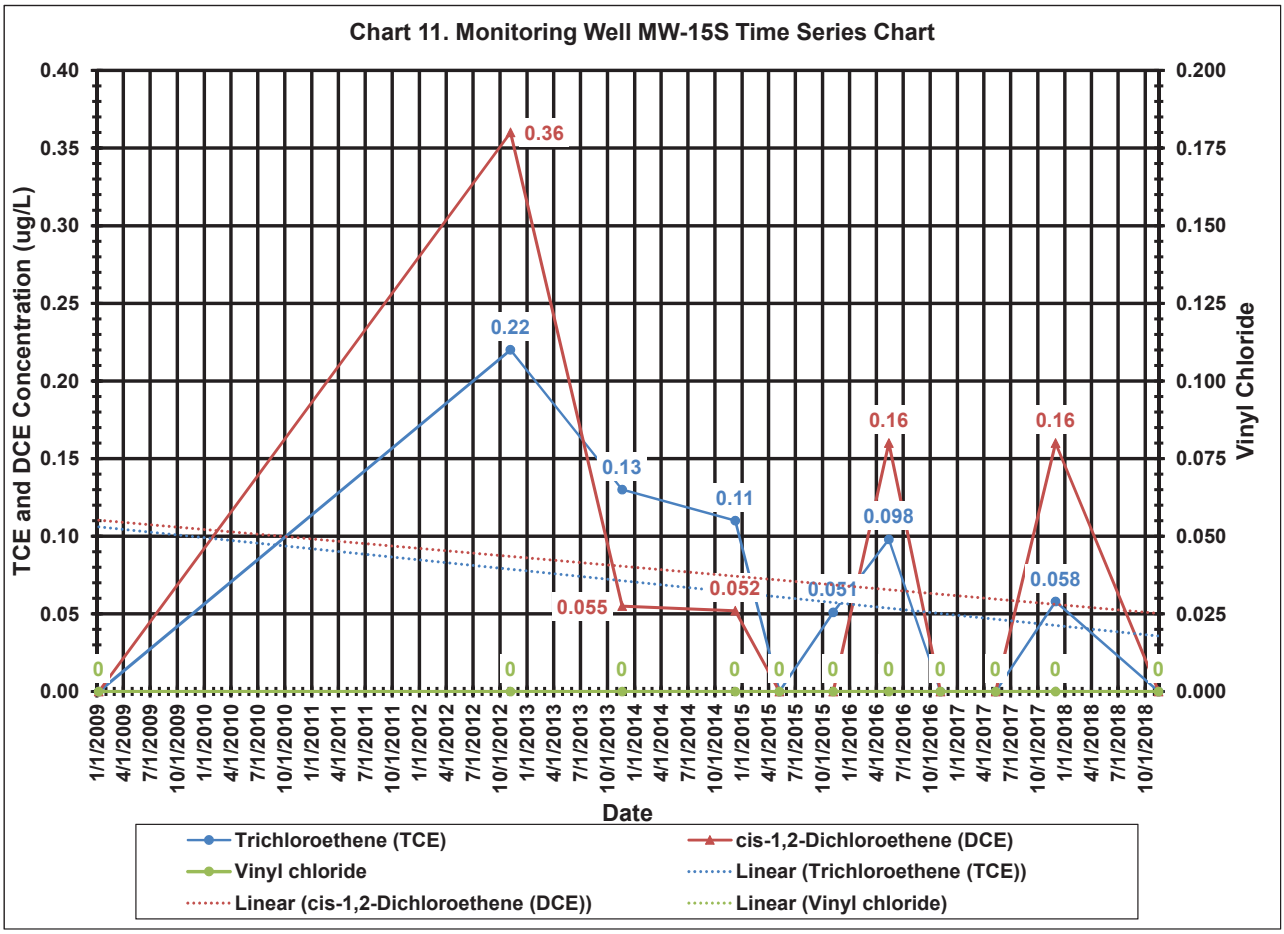
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



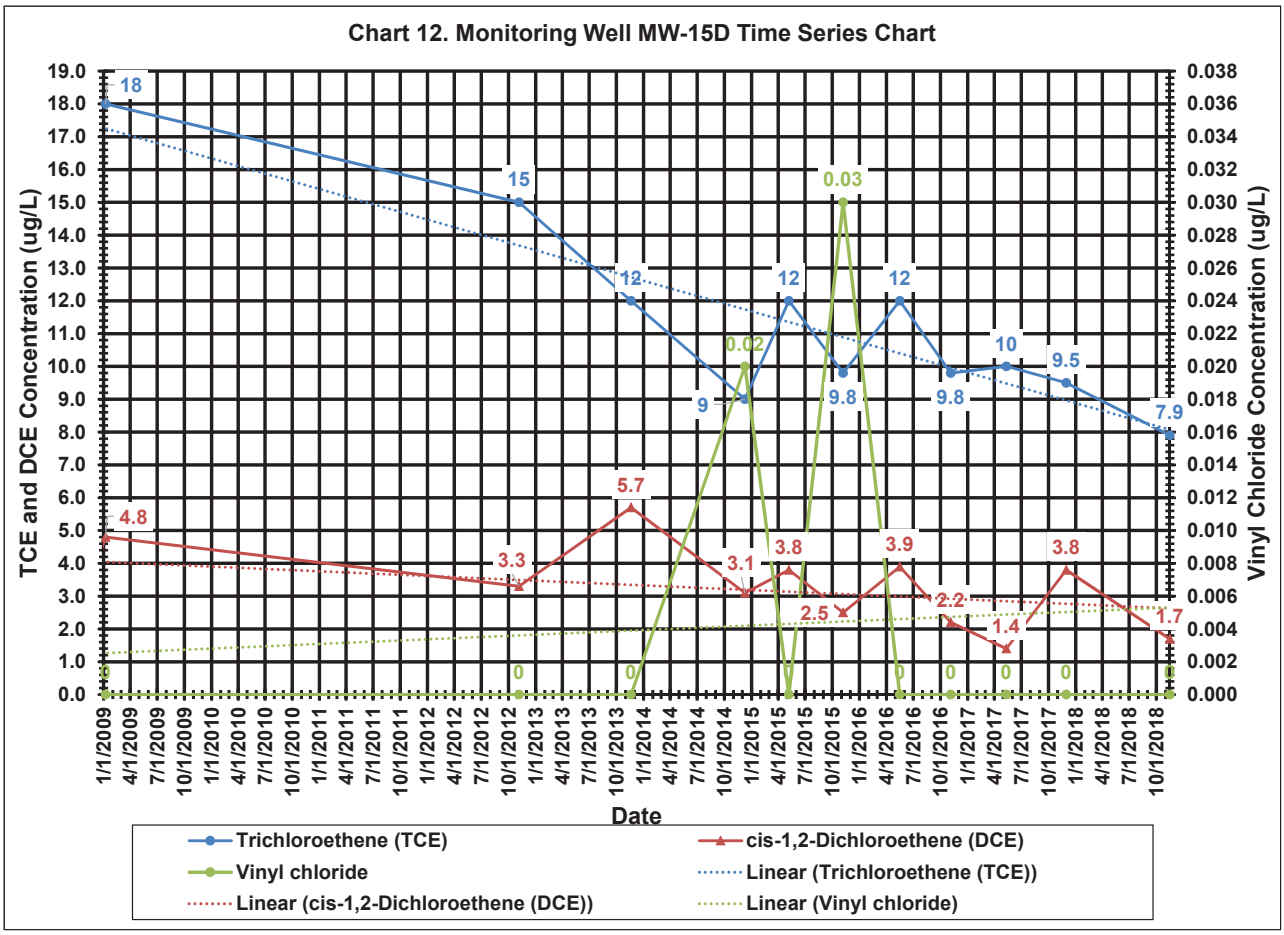
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



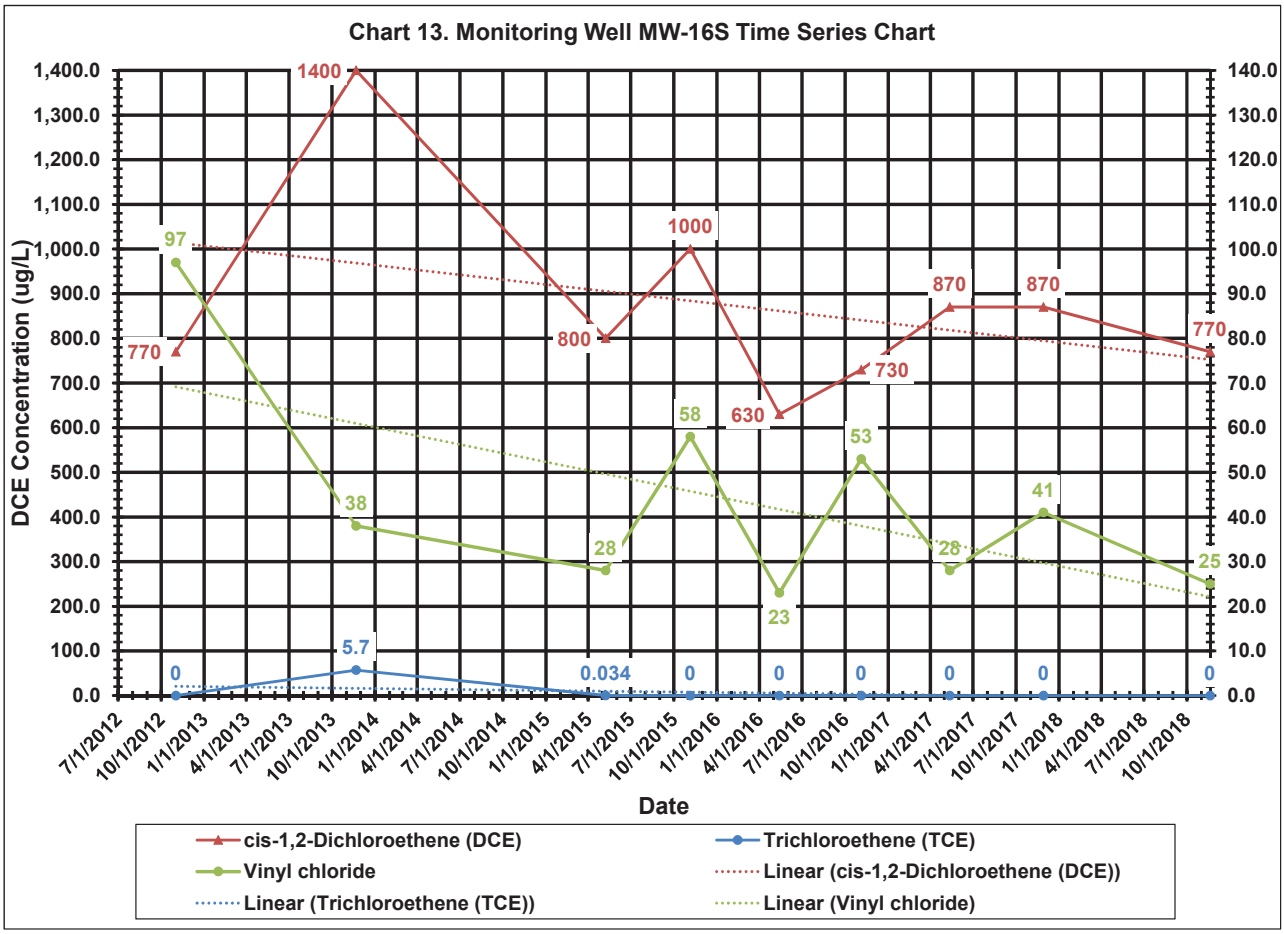
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



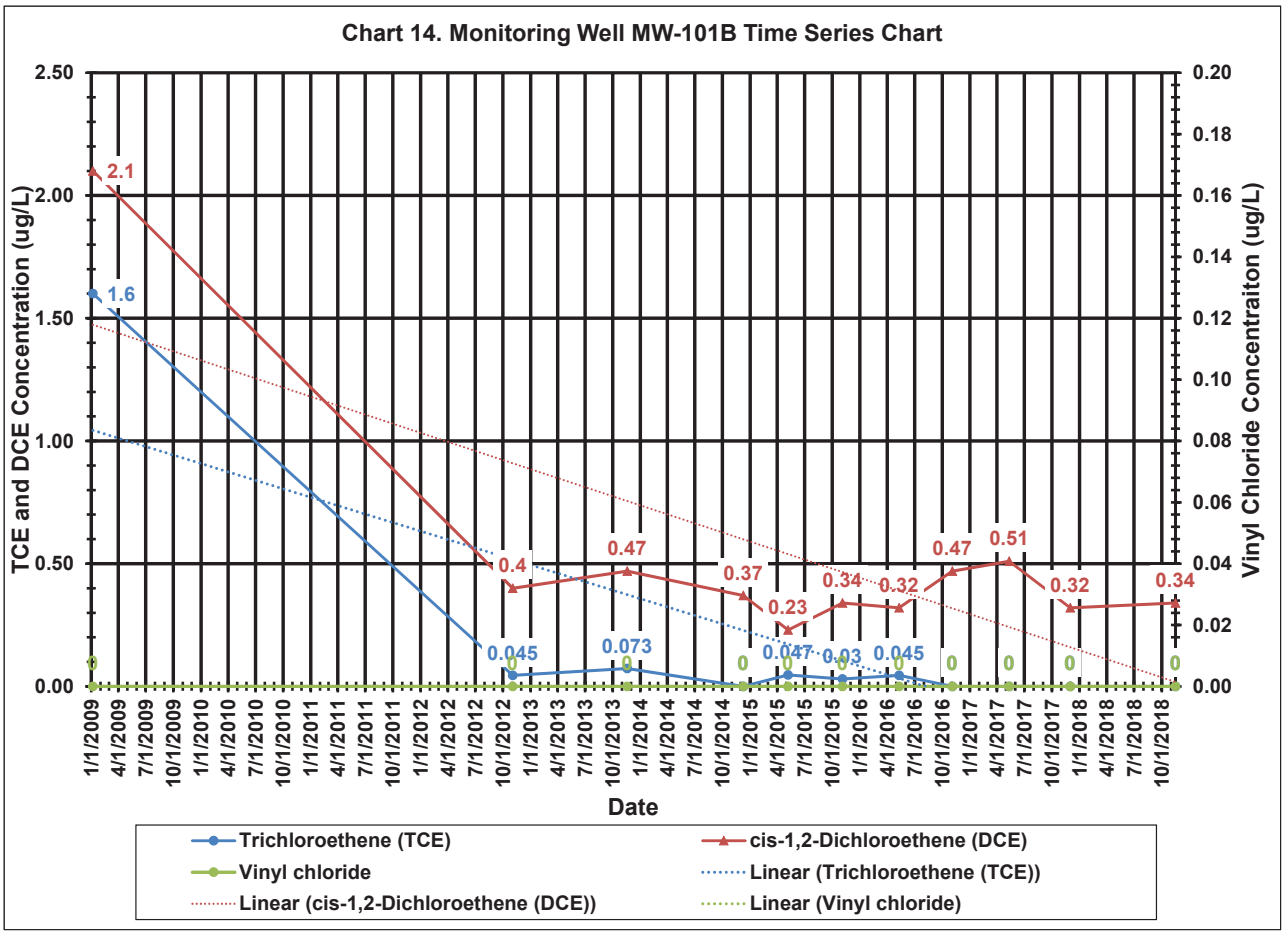
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



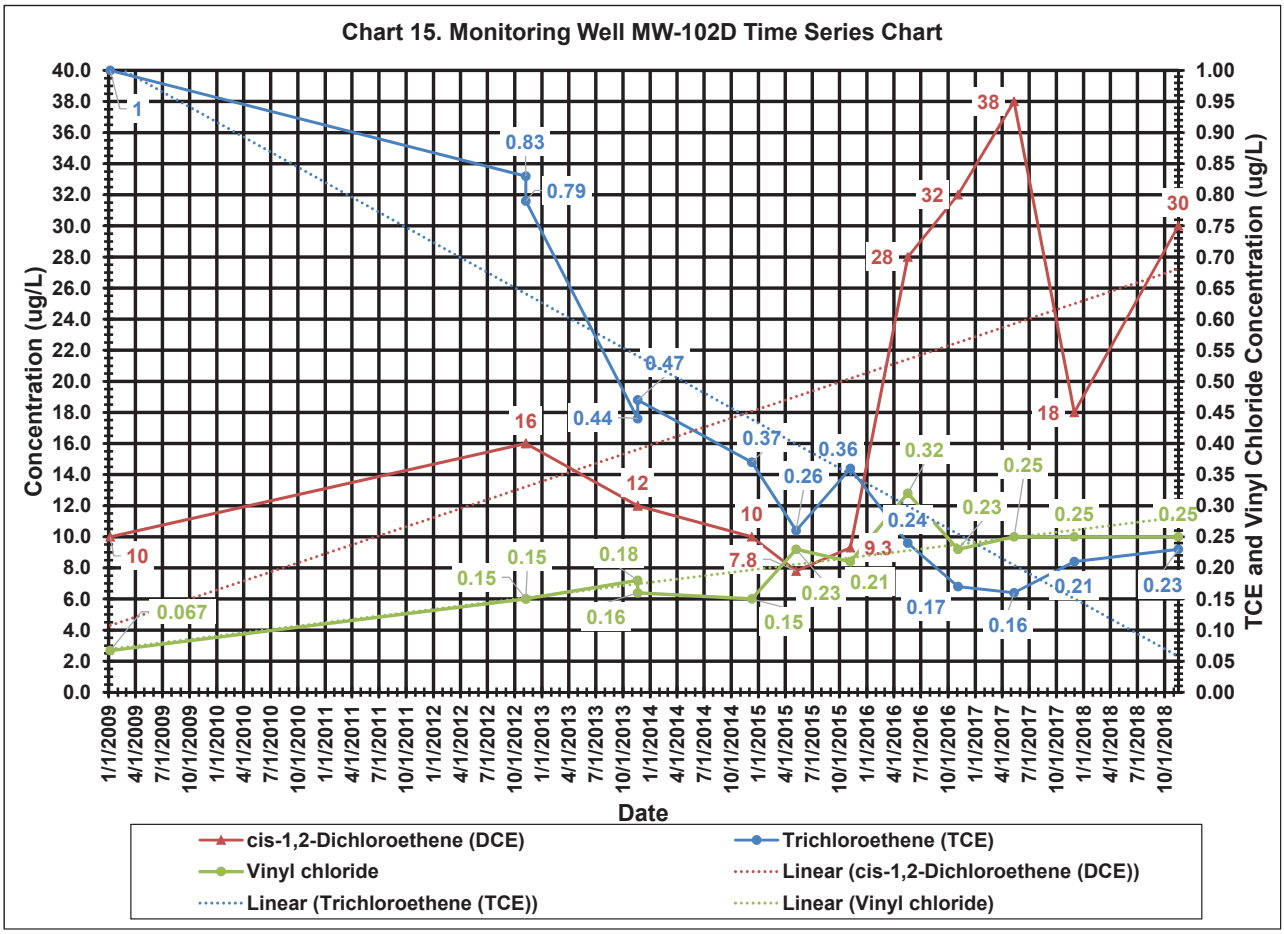
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



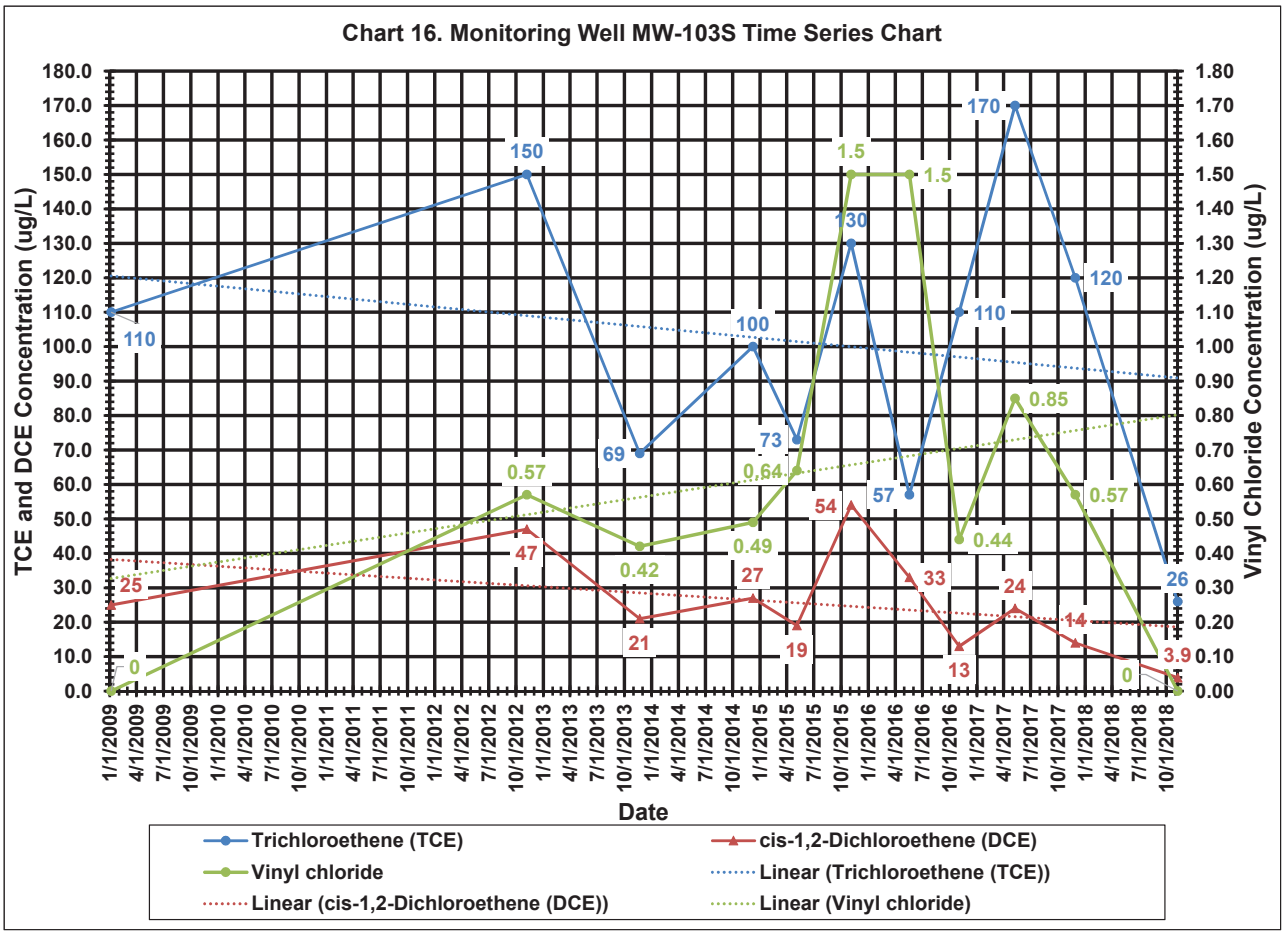
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



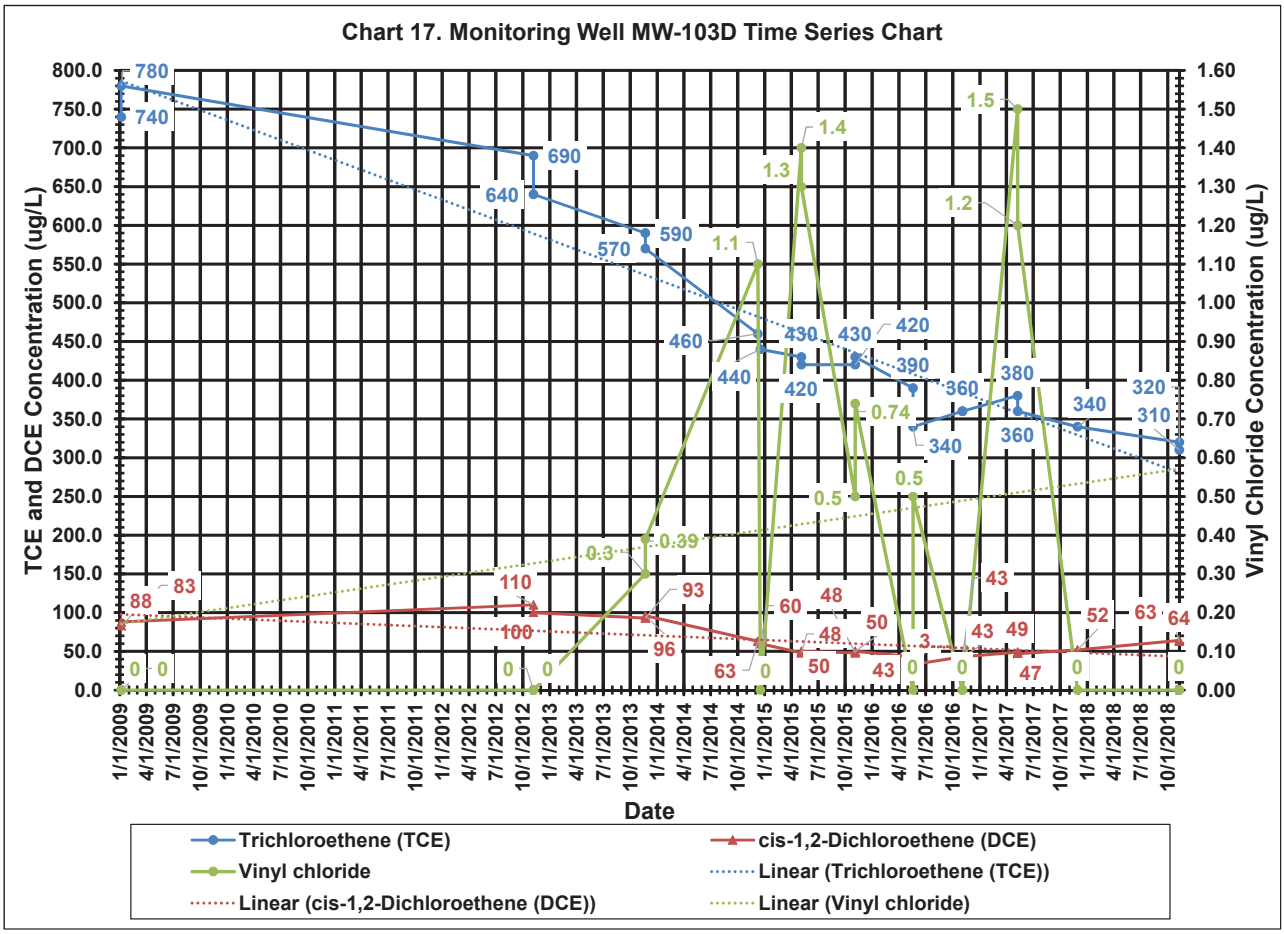
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



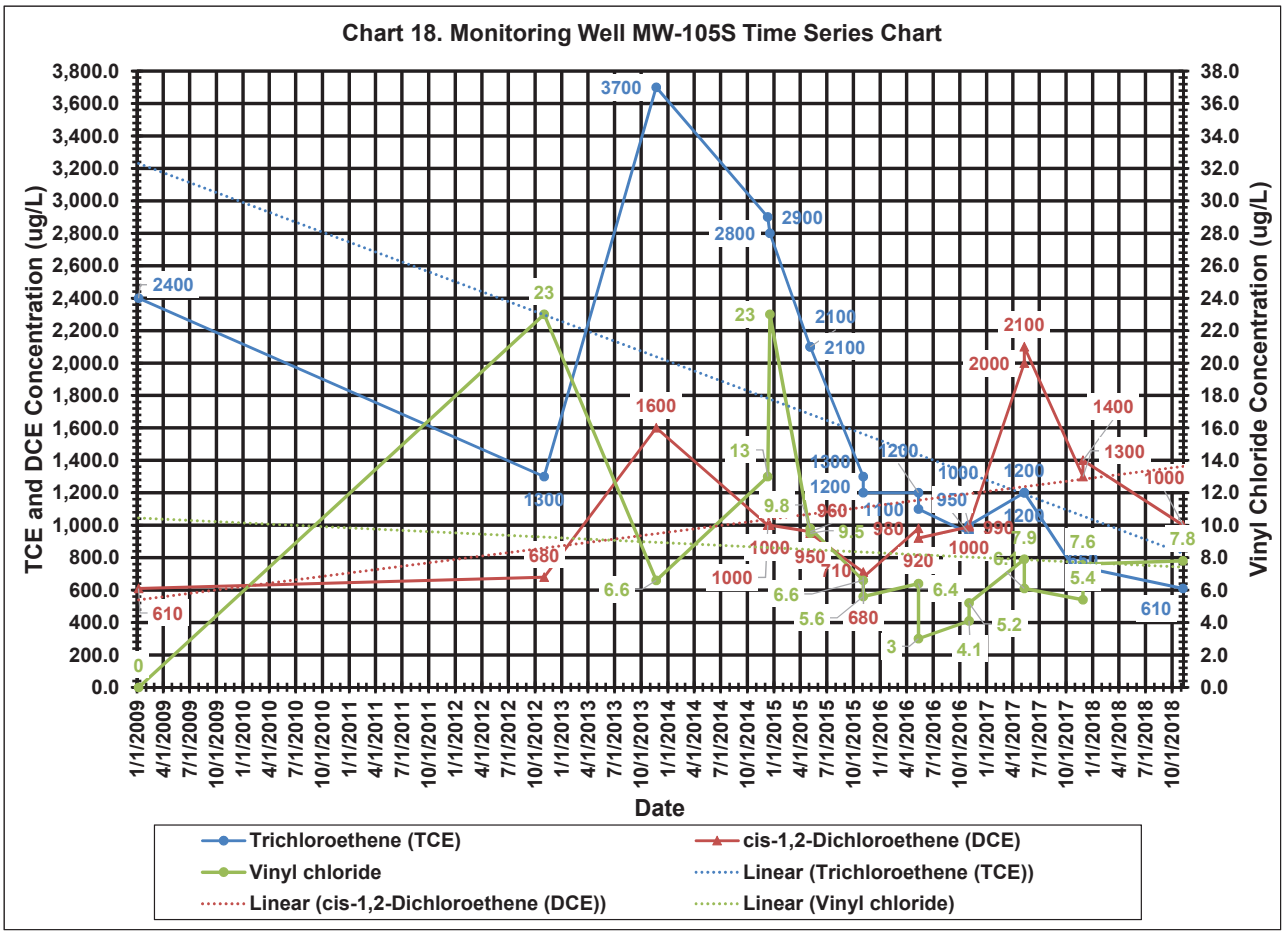
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



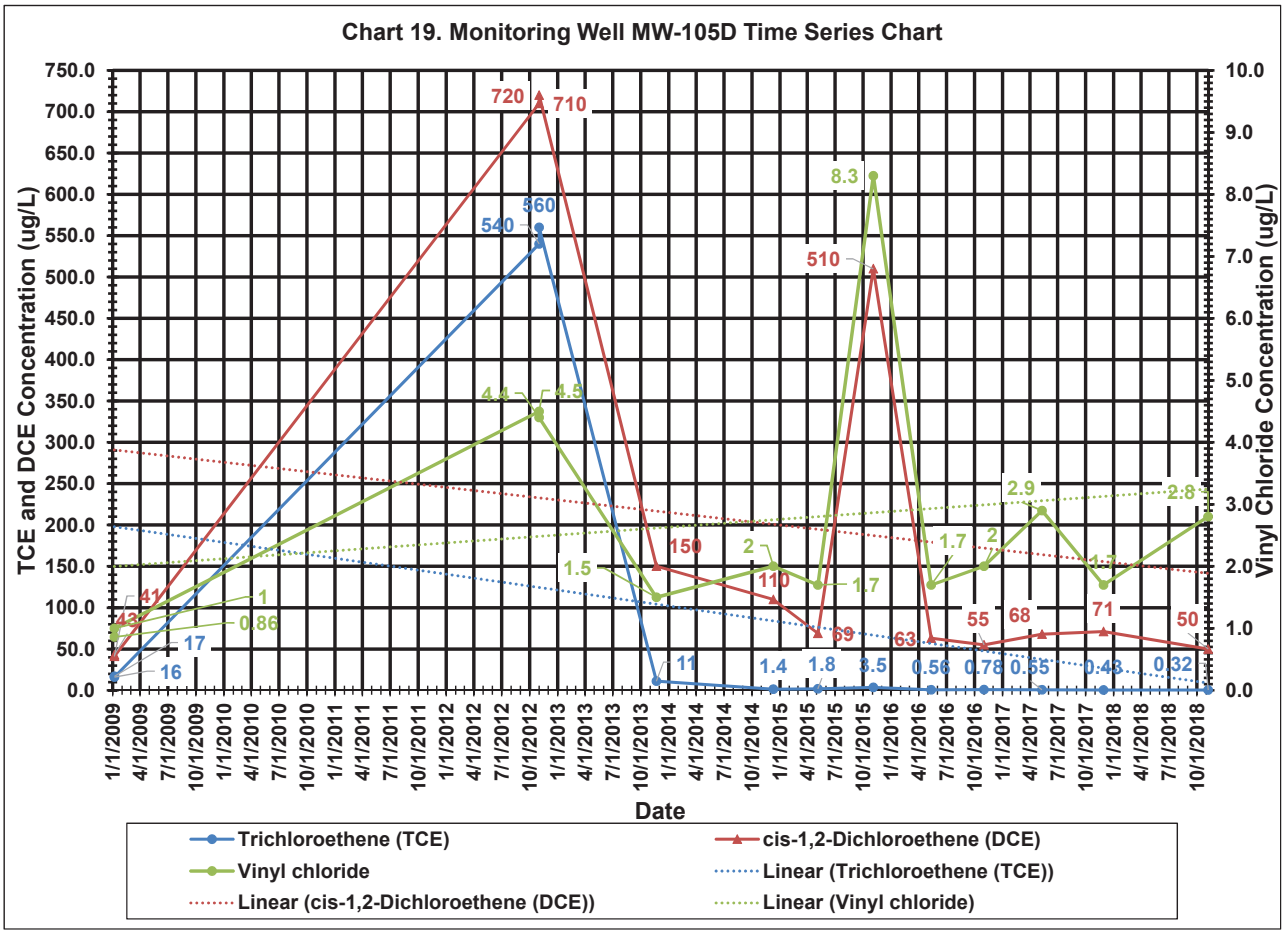
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



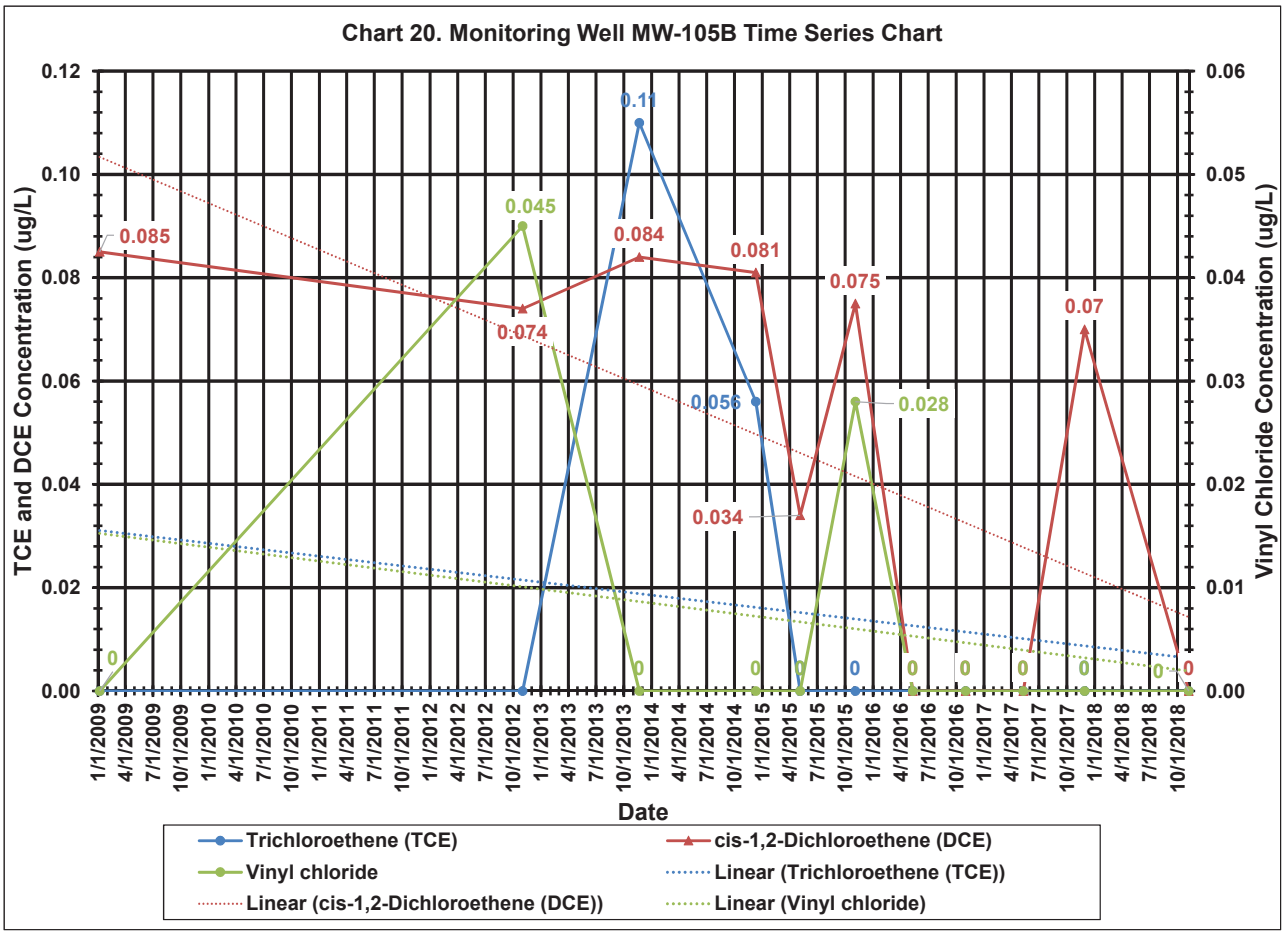
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



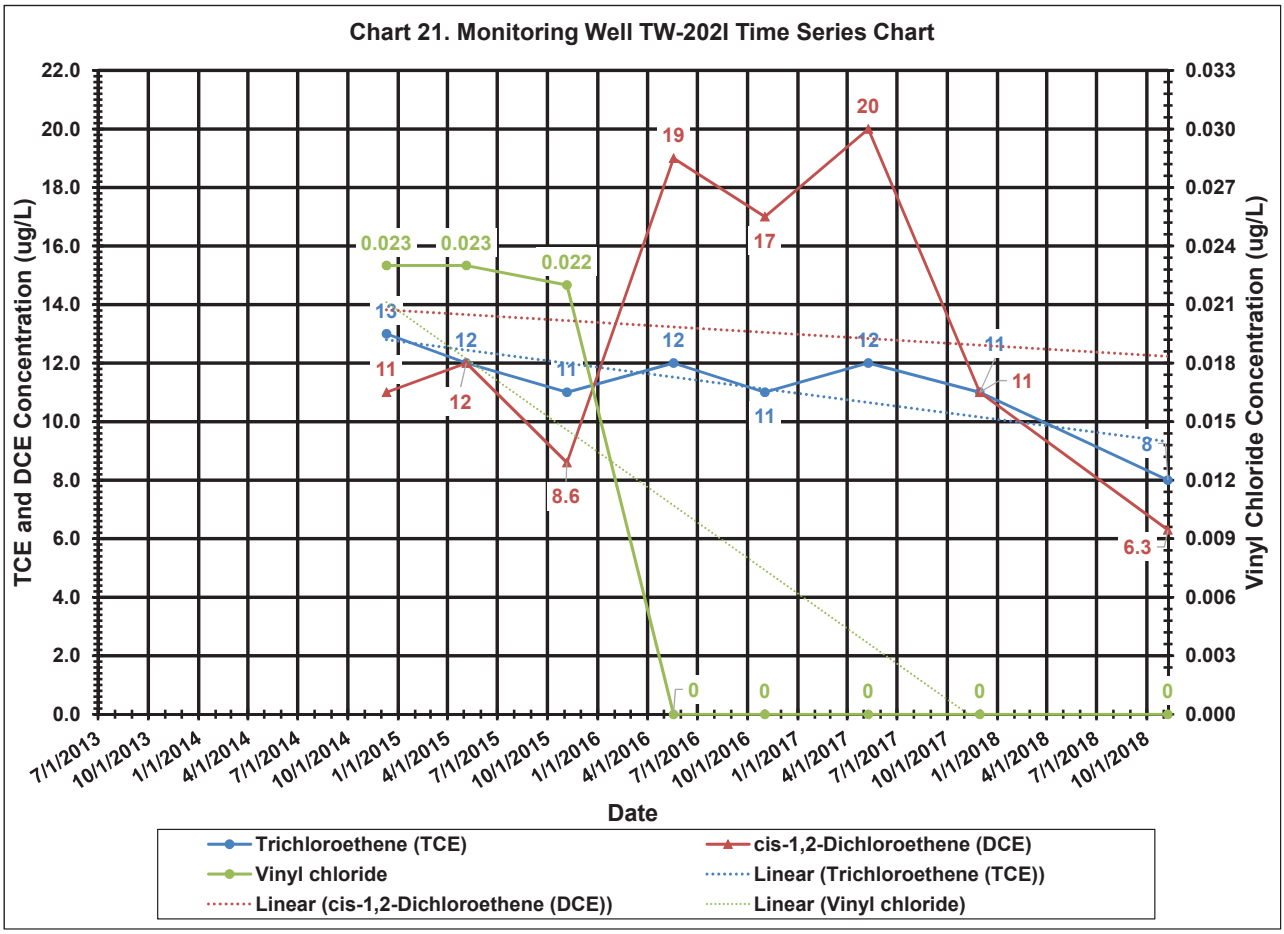
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



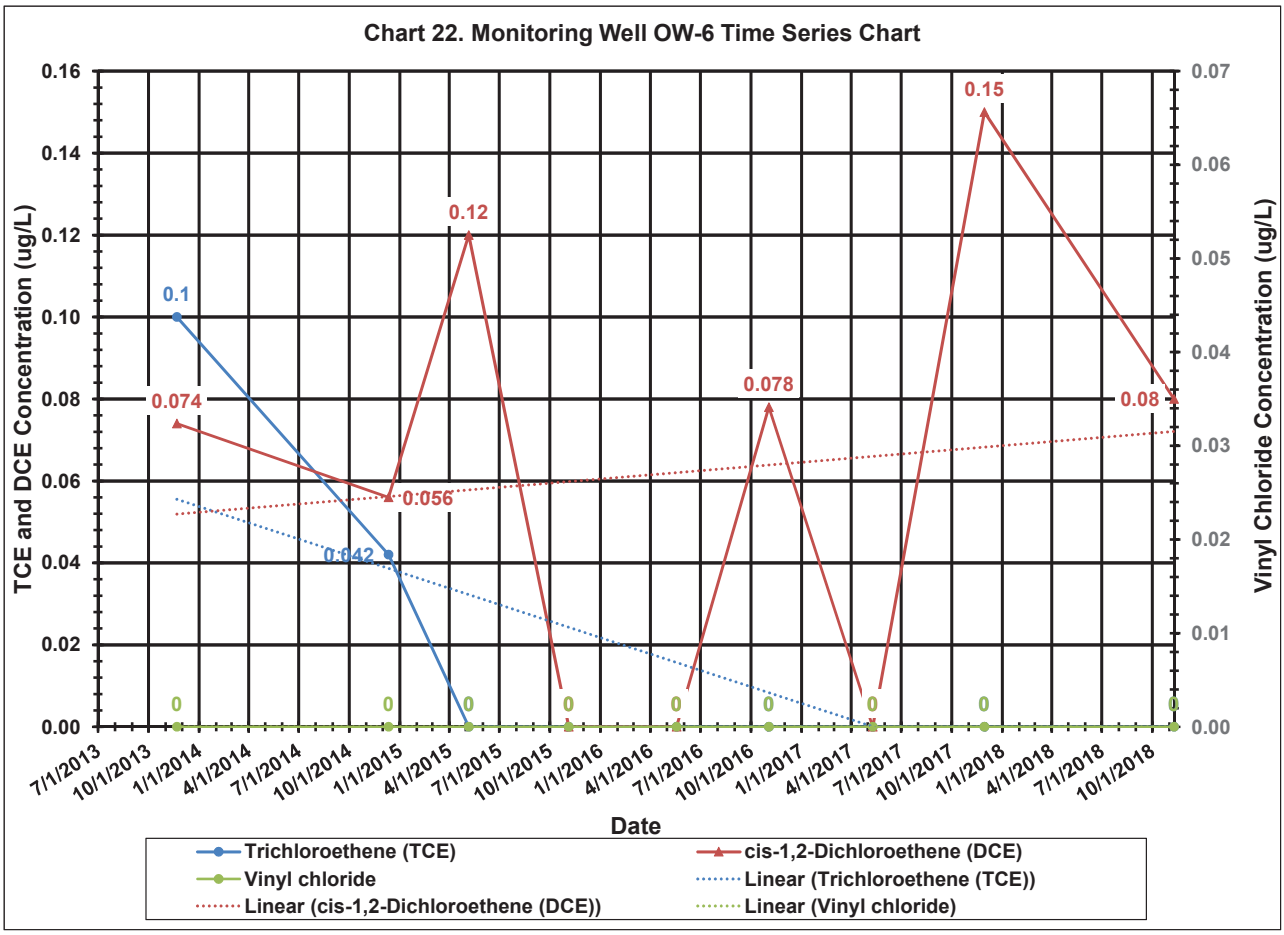
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



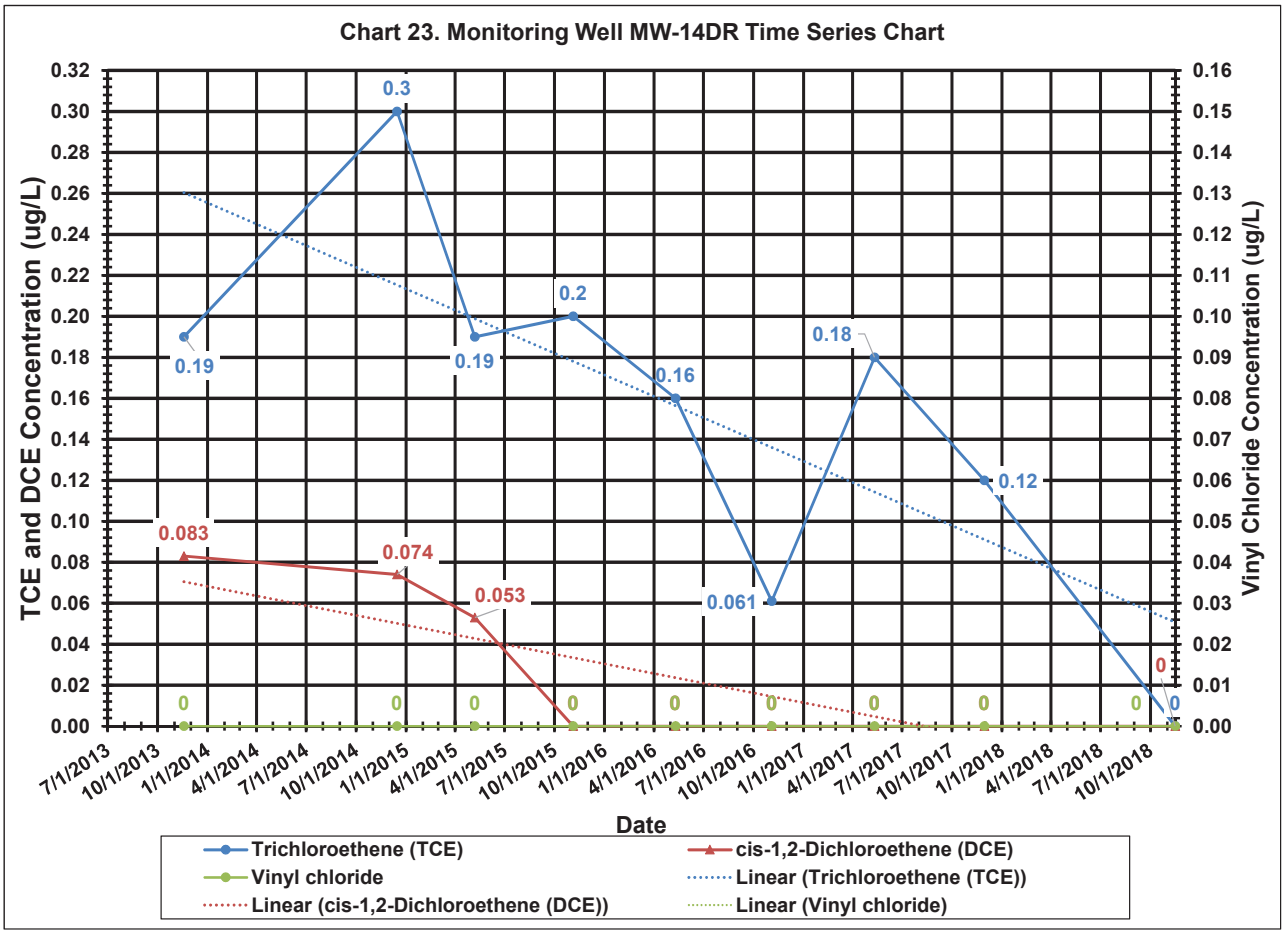
Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.



Note: In-situ soil treatment in source Area A with Daramend performed in June 2013.

APPENDIX F
SITE INSPECTION FORM

Site Inspection Checklist

I. SITE INFORMATION	
Site name: **Oconomowoc Electroplating**	**Date of inspection:** 10/27/2021
Location and Region: **Ashippun, Wisconsin – Region V**	**EPA ID:** **WID0061002755**
Agency, office, or company leading the FYR: EPA	**Weather/temperature:** Clear, 48F

Remedy Includes: (Check all that apply)

☐ Landfill cover/containment	☒ Monitored natural attenuation
☐ Access controls	☐ Groundwater containment
☒ Institutional controls	☐ Vertical barrier walls
☐ Groundwater pump and treatment	☐ Other: Click or tap here to enter text.
☐ Surface water collection and treatment	

Attachments:

☐ Inspection team roster attached	☐ Site map attached

II. INTERVIEWS (Check all that apply)
1. **O&M Site Manager** Name , Title , Click or tap to enter a date. Interviewed: ☐ at site ☐ at office ☐ by phone Phone Number: Click here to enter text. Problems, suggestions: ☐ Report attached **N/A – interviews not conducted**
2. **O&M Staff** Name , Title , Click or tap to enter a date. Interviewed: ☐ at site ☐ at office ☐ by phone Phone Number: Click here to enter text. Problems, suggestions: ☐ Report attached Click or tap here to enter text.
3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply. Agency: Click or tap here to enter text. Contact: Name , Title , Click or tap to enter a date., P: Phone Number Problems, suggestions: ☐ Report attached Click or tap here to enter text. Agency: Click or tap here to enter text. Contact: Name , Title , Click or tap to enter a date., P: Phone Number Problems, suggestions: ☐ Report attached Click or tap here to enter text. Agency: Click or tap here to enter text. Contact: Name , Title , Click or tap to enter a date., P: Phone Number Problems, suggestions: ☐ Report attached Click or tap here to enter text. Agency: Click or tap here to enter text. Contact: Name , Title , Click or tap to enter a date., P: Phone Number Problems, suggestions: Click or tap here to enter text.
4. **Other Interviews (optional):** ☐ Report attached Click or tap here to enter text.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. O&M Documents

☐ O&M manual	☐ Readily available	☐ Up to date	☐ N/A
☐ As-built drawings	☐ Readily available	☐ Up to date	☐ N/A
☐ Maintenance logs	☐ Readily available	☐ Up to date	☐ N/A

Remarks: **N/A - no records maintained onsite, records available at EPA and WDNR**

2. Site-Specific Health and Safety Plan ☐ Readily available

☐ Contingency Plan/Emergency Response Plan ☐ Readily available

Remarks: Click or tap here to enter text.

3. O&M and OSHA Training Records

☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

4. Permits and Service Agreements

☐ Air discharge permit	☐ Readily available	☐ Up to date	☐ N/A
☐ Effluent discharge	☐ Readily available	☐ Up to date	☐ N/A
☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☐ N/A

☐ Other permits: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

5. Gas Generation Records

☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

6. Settlement Monument Records

☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

7. Groundwater Monitoring Records

☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

8. Leachate Extraction Records

☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

9. Discharge Compliance Records

☐ Air ☐ Readily available ☐ Up to date ☐ N/A

☐Water (effluent) ☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

10. Daily Access/Security Logs

☐ Readily available ☐ Up to date ☐ N/A

Remarks: Click or tap here to enter text.

IV. O&M COSTS

1. O&M Organization

☒ State in-house ☒ Contractor for State

☐ PRP in-house ☐ Contractor for PRP

☐ Federal Facility in-house ☐ Contractor for Federal Facility

Remarks: Click or tap here to enter text.

2. O&M Cost Records

☒Readily available ☒ Up to date ☒ Funding mechanism/agreement in place

Original O&M cost estimate Click or tap here to enter text. ☐ Breakdown attached

Total annual cost by year for review period if available

From	To	Total cost	
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	☐ Breakdown attached
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	☐ Breakdown attached
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	☐ Breakdown attached
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	☐ Breakdown attached
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	☐ Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period

Describe costs and reasons:

N/A

Site Inspection Checklist

V. ACCESS AND INSTITUTIONAL CONTROLS

☒ Applicable ☐ N/A

1. Fencing Damaged ☐ Location shown on site map ☐ Gates secured ☒ N/A

Remarks: Click or tap here to enter text.

2. Other Access Restrictions ☐ Location shown on site map ☐ Gates secured

Remarks: N/A

3. Institutional Controls (ICs)

A. Implementation and Enforcement

Site conditions imply ICs not properly implemented	☐ Yes	☒ No	☐ N/A
Site conditions imply ICs not being fully enforced	☐ Yes	☒ No	☐ N/A
Type of monitoring (*e.g.*, self-reporting, drive by)	On-site inspection		
Frequency	annual		
Responsible party/agency	WDNR		

Contact: Gwen Saliares, Project Manager, Click or tap to enter a date., P: (920) 510-4343

Reporting is up-to-date	☒ Yes	☐ No	☐ N/A
Reports are verified by the lead agency	☒ Yes	☐ No	☐ N/A
Specific requirements in deed or decision documents have been met	☒ Yes	☐ No	☐ N/A
Violations have been reported	☐ Yes	☒ No	☐ N/A

Other problems or suggestions:

Click or tap here to enter text.

B. Adequacy ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A

Remarks: Click or tap here to enter text.

4. General

A. Vandalism/Trespassing ☐ Location shown on site map ☒ No vandalism evident

Remarks: Click or tap here to enter text.

B. Land use changes on site ☒ N/A

Remarks: Click or tap here to enter text.

C. Land use changes off site ☒ N/A

Remarks: Click or tap here to enter text.

VI. GENERAL SITE CONDITIONS

1. Roads ☐ Applicable ☒ N/A

A. Roads damaged ☐ Location shown on site map ☐ Roads adequate ☐ N/A

Remarks: Click or tap here to enter text.

B. Other Site Conditions

Remarks: Click or tap here to enter text.

VII. LANDFILL COVERS

1. Landfill Surface ☐ Applicable ☒ N/A

A. Settlement (Low Spots) ☐ Location Shown on Site Map ☐ Settlement Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Cracks ☐ Location Shown on Site Map ☐ Cracking Not Evident

Lengths: Click or tap here to enter text. Widths: Click or tap here to enter text. Depths: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

C. Erosion ☐ Location Shown on Site Map ☐ Erosion Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

D. Holes ☐ Location Shown on Site Map ☐ Holes Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

E. Vegetative Cover ☐ Grass ☐ Cover Properly Established

☐ Tress/Shrubs (indicate size and locations on a diagram ☐ No Signs of Stress

Remarks: Click or tap here to enter text.

F. Alternative Cover (armored rock, concrete, etc.) ☐ N/A

Remarks: Click or tap here to enter text.

G. Bulges ☐ Location Shown on Site Map ☐ Bulges Not Evident

Areal Extent: Click or tap here to enter text. Height: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

H. Wet Areas/Water Damage ☐ Wet Areas/Water Damage Not Evident

☐ Wet Areas	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
☐ Ponding	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
☐ Seeps	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.
☐ Soft Subgrade	☐ Location Shown on Site Map	Areal Extent: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

I. Slope Instability ☐ Location Shown on Site Map ☐ Slope Instability Not Evident

☐ Slides Areal Extent: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

2. Benches ☐ Applicable ☐ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

A. Flows Bypass Bench ☐ Location Shown on Site Map ☐ N/A or Okay

Remarks: Click or tap here to enter text.

B. Bench Breached ☐ Location Shown on Site Map ☐ N/A or Okay

Remarks: Click or tap here to enter text.

C. Bench Overtopped ☐ Location Shown on Site Map ☐ N/A or Okay

Remarks: Click or tap here to enter text.

3. Letdown Channels ☐ Applicable ☐ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

A. Settlement ☐ Location Shown on Site Map ☐ Settlement Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Material Degradation ☐ Location Shown on Site Map ☐ Degradation Not Evident

Material Type: Click or tap here to enter text. Areal Extent: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

C. Erosion ☐ Location Shown on Site Map ☐ Erosion Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

D. Undercutting ☐ Location Shown on Site Map ☐ Undercutting Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

E. Obstructions ☐ Location Shown on Site Map ☐ Undercutting Not Evident

Type: Click or tap here to enter text.

Areal Extent: Click or tap here to enter text. Size: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

F. Excessive Vegetative Growth ☐ Location Shown on Site Map ☐ Excessive Growth Not Evident

Areal Extent: Click or tap here to enter text. ☐ Vegetation in channels does not obstruct flow

Remarks: Click or tap here to enter text.

4. Cover Penetrations ☐ Applicable ☐ N/A

A. Gas Vents ☐ Active ☐ Passive

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☐ N/A

Remarks: Click or tap here to enter text.

B. Gas Monitoring Probes

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☐ N/A

Remarks: Click or tap here to enter text.

C. Monitoring Wells

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☐ N/A

Remarks: Click or tap here to enter text.

D. Leachate Extraction Wells

☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled

☐ Good condition ☐ Evidence of leakage at penetration

☐ Needs Maintenance ☐ N/A

Remarks: Click or tap here to enter text.

E. Settlement Monuments ☐ Located ☐ Routinely Surveyed ☐ N/A

Remarks: Click or tap here to enter text.

5. Gas Collection and Treatment ☐ Applicable ☐ N/A

A. Gas Treatment Facilities

☐ Flaring ☐ Thermal Destruction ☐ Collection for Reuse

☐ Good condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

B. Gas Collection Wells, Manifolds, and Piping

☐ Good condition ☐ Needs Maintenance ☐ N/A

Remarks: Click or tap here to enter text.

C. Gas Monitoring Facilities (e.g. gas monitoring of adjacent homes or buildings)

☐ Good condition ☐ Needs Maintenance ☐ N/A

Remarks: Click or tap here to enter text.

6. Cover Drainage Layer ☐ Applicable ☐ N/A

A. Outlet Pipes Inspected ☐ Functioning ☐ N/A

Remarks: Click or tap here to enter text.

B. Outlet Rock Inspected ☐ Functioning ☐ N/A

Remarks: Click or tap here to enter text.

7. Detention/Sediment Ponds ☐ Applicable ☐ N/A

A. Siltation ☐ Siltation Not Evident ☐ N/A

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Erosion ☐ Erosion Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

C. Outlet Works ☐ Functioning ☐ N/A

Remarks: Click or tap here to enter text.

D. Dam ☐ Functioning ☐ N/A

Remarks: Click or tap here to enter text.

8. Retaining Walls ☐ Applicable ☐ N/A

A. Deformations ☐ Location Shown on Site Map ☐ Deformation Not Evident

Horizontal Displacement: Click or tap here to enter text.

Vertical Displacement: Click or tap here to enter text.

Rotational Displacement: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Degradation ☐ Location Shown on Site Map ☐ Deformation Not Evident

Remarks: Click or tap here to enter text.

9. Perimeter Ditches/Off-Site Discharge ☐ Applicable ☐ N/A

A. Siltation ☐ Location Shown on Site Map ☐ Siltation Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Vegetative Growth ☐ Location Shown on Site Map ☐ N/A

☐ Vegetation Does Not Impede Flow

Areal Extent: Click or tap here to enter text. Type: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

C. Erosion ☐ Location Shown on Site Map ☐ Erosion Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

D. Discharge Structure ☐ Functioning ☐ N/A

Remarks: Click or tap here to enter text.

VIII. VERTICAL BARRIER WALLS

☐ Applicable ☒ N/A

1. Settlement ☐ Location Shown on Site Map ☐ Settlement Not Evident

Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

2. Performance Monitoring Type of Monitoring: Click or tap here to enter text.

☐ Performance Not Monitored ☐ Evidence of Breaching

Frequency: Click or tap here to enter text. Head Differential: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

IX. GROUNDWATER/SURFACE WATER REMEDIES

☒ Applicable ☐ N/A

1. Groundwater Extraction Wells, Pumps, and Pipelines ☐ Applicable ☒ N/A

A. Pumps, Wellhead Plumbing, and Electrical ☐ N/A

☐ Good Condition ☐ All Required Wells Properly Operating ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

B. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances

☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

C. Spare Parts and Equipment ☐ Needs to be Provided

☐ Readily Available ☐ Good Condition ☐ Requires Upgrade

Remarks: Click or tap here to enter text.

2. Surface Water Collection Structures, Pumps, and Pipelines ☒ Applicable ☐ N/A

A. Collection Structures, Pumps, and Electrical

☒ Good Condition ☐ Needs Maintenance

Remarks: ditches/swales surrounding site

B. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances

☐ Good Condition ☐ Needs Maintenance

Remarks: N/A

C. Spare Parts and Equipment ☐ Needs to be Provided

☐ Readily Available ☐ Good Condition ☐ Requires Upgrade

Remarks: N/A

3. Treatment System ☐ Applicable ☒ N/A

A. Treatment Train (Check components that apply)

☐ Metals removal ☐ Oil/Water Separation ☐ Bioremediation

☐ Air Stripping ☐ Carbon Absorbers

☐ Filters Click or tap here to enter text.

☐ Additive (e.g. chelation agent, flocculent) Click or tap here to enter text.

☐ Others Click or tap here to enter text.

☐ Good Condition ☐ Needs Maintenance

☐ Sampling ports properly marked and functional

☐ Sampling/maintenance log displayed and up to date

☐ Equipment properly identified

☐ Quantity of groundwater treated annually Click or tap here to enter text.

☐ Quantity of surface water treated annually Click or tap here to enter text.

Remarks: Click or tap here to enter text.

B. Electrical Enclosures and Panels (properly rated and functional)

☐ N/A ☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

C. Tanks, Vaults, Storage Vessels ☐ N/A

☐ Proper Secondary Containment ☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

D. Discharge Structure and Appurtenances

☐ N/A ☐ Good Condition ☐ Needs Maintenance

Remarks: Click or tap here to enter text.

E. Treatment Building(s)

☐ N/A ☐ Good condition (esp. roof and doorways)

☐ Needs repair ☐ Chemicals and equipment properly stored

Remarks Click or tap here to enter text.

F. Monitoring Wells (Pump and Treatment Remedy) ☐ N/A

☐ Properly secured/locked ☐ Functioning

☐ Routinely sampled ☐ All required wells located

☐ Good condition ☐ Needs Maintenance

Remarks Click or tap here to enter text.

4. Monitoring Data

A. Monitoring Data:

☒ Is Routinely Submitted on Time ☒ Is of Acceptable Quality

B. Monitoring Data Suggests:

☒ Groundwater plume is effectively contained ☒ Contaminant concentrations are declining

5. Monitored Natural Attenuation

A. Monitoring Wells (natural attenuation remedy) ☐ N/A

☒ Properly secured/locked ☒ Functioning ☒ Routinely sampled

☒ All required wells located ☐ Needs Maintenance ☒ Good condition

Remarks: Click or tap here to enter text.

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

1. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).
The remedy continues to be effective and functioning as designed. Contaminated surface water, sludge, soils, and sediments have been remediated. The facility has been dismantled and debris disposed of. Contaminated groundwater continues to attenuate naturally.

2. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

Implementation of O&M procedures support long term protectiveness of the remedy

3. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

none

4. Early Indicators of Potential Remedy Problems

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

none

APPENDIX G

SITE INSPECTION PHOTOGRAPHS

Looking north across site November 2021

Looking south across site November 2021

Looking east across site November 2021

Looking west across site November 2021

Looking southwest across wetland November 2021

Groundwater monitoring wells MW-105S, MW-105D, and MW-105B