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March 14, 2022

Mr. Glenn May
New York State Department of Environmental Conservation, Region 9
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: 02/15/21 – 02/15/22 PERIODIC REVIEW REPORT
Chem-Trol Site, Registry No. 9-15-015,
Blasdell, Erie County

Dear Mr. May:

AECOM Technical Services, Inc. (AECOM), on behalf of SC Holdings, Inc. (SC Holdings), is submitting this Periodic Review Report (PRR) along with a completed Institutional Controls and Engineering Controls (IC/EC) Certification Form (Attachment A) for the Chem-Trol site for the reporting period of February 15, 2021 to February 15, 2022[1]. This report is being submitted as requested by the New York State Department of Environmental Conservation (NYSDEC) in its letter dated January 11, 2022 to Mr. Chad Moose. The letter provides guidance for preparing the PRR and IC/EC form and requires that they be submitted to NYSDEC no later than March 17, 2022.

I. INTRODUCTION

The Chem-Trol site is located at 4818 Lake Avenue, Town of Hamburg, in Erie County, New York. Chem-Trol Pollution Services (Chem-Trol) purchased the property in 1969 and operated the site as a waste chemical processing facility that included chemical recovery, storage, and neutralization. Wastes, including capacitors, pesticides, oil sludges, paint sludges, spent solvents and pickle liquors, were accepted at the facility for processing. The facility ceased operations in 1972.

As a result of historic waste processing activities, on-site soil and groundwater were impacted with heavy metals and volatile organic compounds (VOCs). In 1977, as part of the facility closure activities, Chem-Trol removed approximately 95 cubic yards of contaminated soils, placed clean soil cover and established vegetative cover over the area.

Investigative studies led to a Record of Decision (ROD) in 1996 that specified additional remedial activities. These included removal of additional soils, and construction of a soil vapor extraction (SVE) system and groundwater collection and treatment system. The SVE system includes a header

[1] Note that the February 2022 effluent monitoring sample was collected on February 23, 2022 and is reported herein; the February 2022 sample data are also included in Figure 6.

pipe and eight subsurface laterals installed in a linear array within the area of remediated soils. The groundwater collection and treatment system includes a blast-fractured bedrock trench in which three groundwater collection wells are installed, conveyance piping, and a shallow tray air stripper that removes VOCs from the collected groundwater. The treated groundwater is discharged through a pipe to the South Branch of Smokes Creek.

The SVE system and the groundwater collection and treatment system continue to operate. During 2010, McMahon & Mann Consulting Engineers, PC (MMCE) evaluated the effectiveness of passive operation of the SVE system in removing soil vapors. Subsequently, the SVE system was converted from active to passive operation in 2010. A copy of the SVE system evaluation letter report was included as Attachment B in the 2010 PRR.

II. SITE OVERVIEW

The Chem-Trol site is situated in an urban setting with industrial/commercial areas to the north and east, commercial development along Lake Avenue to the south, and residential areas to the west, across the South Branch of Smokes Creek. Figure 1 shows the Chem-Trol site location and features.

Investigations completed between 1991 and 1994 showed contaminated soils generally located in the former operations and surface lagoon areas. Additional soil contamination was found in the on-site tributary of Smokes Creek as well as the flood plain along the western edge of the site. Contaminated groundwater was found in the overburden as well as the shallow bedrock beneath the site. Groundwater contours developed as part of the investigations show that groundwater flows in a northwesterly direction beneath the site toward the South Branch of Smokes Creek.

Because of the on-site contamination, the Chem-Trol site was assigned a hazardous waste site classification of 2 by NYSDEC. This classification indicates that the site poses a significant threat to public health and/or the environment and that action in the form of further investigations and remediation is required.

NYSDEC selected a remedial design based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Chem-Trol site. The March 1996 ROD selected a remedy that included:

- Excavation of soils and sediments from selected areas of the site;
- Installation of a groundwater collection trench along the western edge of the site;
- Improvement of the existing soil cover over the former chemical processing area; and,
- Installation of a SVE system within the former waste chemical processing area.

Pre-design investigations and remedial design were completed between 1997 and 2000. Construction of the ROD-required remedial components was completed between 1999 and 2001. Operation, maintenance and monitoring of the remedial components began in 2001. In December 2004, the Chem-Trol site was re-classified to a class 4 site by NYSDEC. This classification indicates that remedial actions taken at the site to eliminate significant threats to public health and the environment have been properly constructed and implemented, and long-term operation, maintenance and monitoring of the in-place remedial systems is necessary to assure remedy effectiveness.

Goals for the remedial program were established through the remediation selection process given in 6 NYCRR 375-1.10. The remediation goals established for this site include:

- Reduce and remove chemical contamination in the soils, sediments and groundwater at the site;
- Eliminate the potential for direct human or animal contact with the contaminated soils, sediments, and groundwaters at the site;
- Prevent migration of contaminants in the on-site soils into the groundwater;
- Prevent off-site migration of contaminated groundwater and mitigate the impacts of contaminated groundwater to the environment; and,
- Provide for attainment of Soil Cleanup Guidelines (SCG) for groundwater quality to the extent practical.

III. REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

SC Holdings continues to monitor the performance of the SVE and groundwater collection and treatment system.

SVE System

SC Holdings submitted a work plan to NYSDEC on October 22, 2009 proposing conversion of the active system to a passive venting system and monitoring the performance of the passive system for a year. NYSDEC authorized the conversion to a passive system along with monthly monitoring. The SVE treatment system was converted from active to passive operation in January 2010.

After a year of monitoring, SC Holdings submitted a report describing the monitoring results as indicating that passive operation of the SVE system provides similar and possibly improved effectiveness as active operation of the SVE system in venting soil vapors. Water level data in the passive vent risers indicated that passive venting might also contribute to generally lower water levels in the laterals for a longer period of time over the course of the year and therefore provide a greater opportunity to vent soil vapors.

It was recommended that active operation of the SVE system permanently cease and that passive operation of the SVE system laterals continue. In addition, it was recommended that continued monitoring of the SVE system laterals be eliminated. NYSDEC agreed with these recommendations in a letter to Mr. Mark Snyder dated May 29, 2011.

During this reporting period, the SVE system continued to operate passively. The lateral riser pipes were visually examined for damage during quarterly site visits. No damage was observed during these site visits.

Groundwater Collection and Treatment System

SC Holdings has the following actions performed by AECOM (items 1 through 6) in order to monitor the performance of the groundwater collection system as required in the ROD:

1. Perform monthly operation and maintenance tasks on the system;
2. Perform periodic cleaning of the air stripper, including visual check of seals and removal of mineral accumulation in air stripper trays using mechanical means (scrubbing, re-drilling holes to full diameter, etc.) (Note: See Section IV - O&M Plan Compliance for discussion regarding replacement of the HDPE air stripper and mechanical components with a new stainless steel air stripper and mechanical components in June 2021.);
3. Sample and analyze the groundwater collection and treatment system influent and effluent on a monthly basis for a site-specific list of 10 VOCs, Total Iron, Total Suspended Solids (TSS), and pH;
4. Measure and record water levels in groundwater extraction wells and groundwater monitoring wells on a quarterly basis;
5. Prepare bedrock groundwater contours based on quarterly water level measurements collected during the year; and,
6. Obtain annual groundwater samples for VOCs from six groundwater monitoring wells.

Effluent from the groundwater collection and treatment system (air stripper) discharges into the South Branch of Smokes Creek. Monthly aqueous effluent samples taken from the air stripper surface water discharge pipe are analyzed for surface water discharge parameter limit concentrations including VOCs by EPA Method 624.1, Total Iron by EPA Method 200.7, TSS by Standard Method (SM) 2540D, and pH by SM 4500 H+ B. Analytical test results show that discharge parameter concentrations in the air stripper effluent for March 2021 through February 2022 were below the concentration and mass loading discharge limits established by NYSDEC for 10 of 12 months. TSS exceeded the concentration limit in the March 2021 and July 2021 samples (note there is no mass loading limit for TSS). Total iron exceeded the concentration limit but not the mass loading limit in March 2021. Response actions for these events are presented in Section IV. Details for the events are as follows:

- March 2021 effluent sample – There was a TSS detection of 111 milligrams per liter (mg/L) (vs. the concentration limit of 20 mg/L). Mass loading of TSS was 5.88 pounds per day (lbs/day) (note there is no mass loading limit for TSS). There was a total iron detection of 4,800 micrograms per liter (µg/L) (vs. the concentration limit of 3,000 µg/L). Mass loading of total iron was 0.25 lbs/day, below the limit of 3.61 lbs/day. On March 25, 2021, AECOM performed a flush-and-rinse acid wash of the air stripper. The system was sampled on April 26, 2021; analytical data were received on May 14, 2021. There were no exceedances of the concentration or mass loading limits for any parameter in the effluent samples from the April 26, 2021 sampling event.
- July 2021 effluent sample – There was a TSS detection of 28.8 mg/L (vs. the concentration limit of 20 mg/L). Mass loading of TSS was 0.71 lbs/day (note there is no mass loading limit for TSS). On August 12, 2021, AECOM performed pressure washing and mechanical cleaning of the air stripper trays. The system was sampled on August 19, 2021; analytical

data were received on August 31, 2021. There were no exceedances of the concentration or mass loading limits for any parameter in the effluent samples from the August 19, 2021 sampling event.

Analytical test results for the monthly aqueous effluent samples are included in the Operation and Maintenance (O&M) reports submitted by AECOM to NYSDEC on a quarterly basis; results from the January and February 2022 samples will be submitted with the March 2022 sample data not later than April 15, 2022.

Monthly testing of the air stripper exhaust discharge (vapor phase) samples ceased after April 2011. Monthly testing was eliminated based upon a letter from Al Zylinski, NYSDEC Division of Air Resources, to MMCE (consultant to SC Holdings) dated April 6, 2011. The letter approved elimination of sampling and testing of the air stripper exhaust.

In October 2020, a Sensaphone remote monitoring system was installed for the groundwater treatment system. The Sensaphone system automatically notifies AECOM personnel when power to the site is lost, and when pumps or the blower become non-operational so that a service visit can be scheduled and minimize downtime of the system.

A summary of quarterly groundwater elevations measured in the groundwater monitoring wells and piezometers during 2021 is included in Table 1 - Summary of Groundwater Elevation Measurements. Quarterly groundwater elevation contours for 2021 are plotted on Figures 2 through 5. First quarter 2022 groundwater elevation data are scheduled to be collected in March 2022 and will be included in the 2022/2023 PRR.

The contours show that the three extraction wells depress water levels in the trench below natural groundwater levels in that area of the site. The resulting depression in the groundwater table creates groundwater flow toward the collection trench. The measurements demonstrate that the collection trench is functioning as designed to restrict offsite flow and limit groundwater discharge to the South Branch of Smokes Creek.

VOC analytical test results of groundwater treatment system influent samples have historically shown o-chlorotoluene levels in higher concentrations than other organic compounds. Therefore, concentrations of o-chlorotoluene detected in groundwater treatment influent samples have been used to assess the performance of the treatment system in reducing organic compound concentrations in the groundwater. The o-chlorotoluene concentration data for influent groundwater samples was plotted versus time for the January 2003 through February 2022 sampling events (see Figure 6). The plot shows that the concentration of o-chlorotoluene in the influent groundwater samples has been reduced since initiation of treatment system operation. This indicates that the treatment system is meeting the remedial goal of reducing organic compound concentrations in the groundwater.

A comparison of the influent and effluent sample analytical results shows that the air stripper is effectively removing VOCs from the groundwater collected by the treatment system.

Annual Groundwater Monitoring

Annual groundwater monitoring was conducted by AECOM field personnel on October 22, 2021. Groundwater samples were successfully collected from MW-3S, MW-7R, MW-8R, MW-9R, MW-13R, and MW-15R and analyzed by TestAmerica Laboratories, Inc. (Amherst, NY) for VOCs by EPA Method 8260C. A summary of VOC detections for the annual 2021 groundwater-monitoring event is included as Table 2, Detection Summary. The complete 2021 groundwater sample analytical laboratory report is included as Attachment B. Historical concentration versus time trend plots for monitoring wells MW-3S, MW-8R, MW-9R, and MW-13R are included as Attachment C.

IV. O&M PLAN COMPLIANCE

SC Holdings performed the following activities as part of the O&M Plan requirements:

Soil Vapor Extraction System

AECOM performed the following activity in 2021 as part of quarterly visits to the site:

- Visually observed each SVE passive vent riser for damage.

Groundwater Collection and Treatment System

AECOM performed the following activities in 2021 and January and February 2022 as part of routine monthly O&M visits:

- Verified that each extraction well was running and performing as designed;
- Observed that each pump was operating, documented pumping rates, total gallons pumped and insured that high and low water controls are functioning as designed;
- Performed monthly influent and effluent sample analytical testing;
- Observed that the air stripper was performing as designed;
- Performed monthly inspections of air stripper trays;
- Performed quarterly cleaning of air stripper trays to remove accumulated iron precipitate or more often if necessary to promote optimum removal of VOCs; and,
- Prepared and submitted 2021 O&M reports on a quarterly basis to NYSDEC.

The quarterly O&M reports submitted to NYSDEC provide further details on specific activities performed, analytical testing results, and observations made during the routine monthly O&M visits. Routine activities include general inspection and maintenance work performed on pumps, equipment, and sensors, as described in the monthly O&M reports.

In addition, the following non-routine maintenance activities were also performed and reported in the respective quarterly O&M reports this reporting period:

- June 2021 - During the first week of June 2021, AECOM subcontractor Matrix Environmental Technologies, Inc. (Matrix) performed planned upgrade maintenance on the treatment

system which included replacing the HDPE air stripper with a QED Model EZ-12.6HF stainless steel air stripper, replacing the blower, replacing constricted effluent piping between the air stripper and the cleanout outside the treatment building, and adding a cleanout for the new effluent piping. With the new stainless steel air stripper, acid washes are no longer appropriate to clean the air stripper trays. The trays are now periodically removed from the air stripper unit and cleaned using mechanical methods (i.e., scraping, pressure washing). Some system piping may still require an acid flush periodically to remove accumulated precipitates.

- September 20, 2021 – During a site visit to collect the third quarter 2021 quarterly groundwater levels, AECOM noted an error message for the EW-1 pump. Matrix performed a maintenance visit and determined that the pump needs to be replaced. The pump has been ordered and replacement is scheduled for March 2022.

In a letter dated April 13, 2021, NYSDEC approved the 02/15/20-02/15/21 PRR and associated IC/EC Certification.

V. CONCLUSIONS AND RECOMMENDATIONS

Groundwater Collection and Treatment

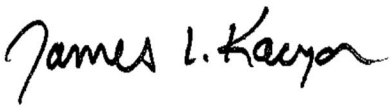
A comparison of the monthly influent vs. effluent analytical test results shows that the groundwater collection and treatment system continues to remove contaminants from groundwater at the Chem-Trol site. A plot of the influent o-chlorotoluene concentration versus time (see Figure 6) indicates that the source contributing to groundwater VOC concentrations has been reduced to where its influence on groundwater has decreased over time. A relatively gradual increase from May 2016 through February 2022 has been observed, with concentrations remaining well below earlier levels. This trend will continue to be monitored.

The quarterly groundwater elevation data show that the groundwater collection system continues to contain groundwater contaminants and creates a gradient toward the groundwater collection wells and away from the South Branch of Smokes Creek.

The HDPE air stripper was in operation since 2001. A replacement stainless steel air stripper (QED Model EZ-12.6HF) was installed as of the first week of June 2021.The new air stripper has an updated design with pull out trays to facilitate more efficient cleaning of the system. The new air stripper is cleaned by mechanical means instead of acid washes.

Please call the undersigned at AECOM (716-923-1300) or Mr. Ryan Donovan (413-275-1522) if you have any questions or require any additional information after reviewing this report.

Sincerely yours,



James L. Kaczor, P.G.
Project Manager
james.kaczor@aecom.com

Enclosures (Tables, Figures)

Attachments (IC/EC Form, 2021 Annual Groundwater Data Report, Historical Trend Plots)

cc: Chad Moose, P.G. (SC Holdings, Inc.), electronic copy w/attachments
Ryan Donovan (SC Holdings, Inc.), electronic copy w/attachments
Donald McCall, P.E. (AECOM), electronic copy w/attachments
60652207 Project File

TABLES

Table 1
Chem-Trol Site, Blasdell, NY
Summary of Groundwater Elevation Measurements 2021

Pumping Wells		1Q Date 3/25/2021		2Q Date 6/22/2021		3Q Date 9/20/2021		4Q Date 12/9/2021	
Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
EW-1	624.07	15.43	608.64	16.21	607.86	16.09	607.98	12.44	611.63
EW-2	622.16	12.91	609.25	13.76	608.40	13.84	608.32	12.93	609.23
EW-3	621.10	14.09	607.01	13.73	607.37	12.41	608.69	13.02	608.08

East of Cap (North to South)

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
MW-6S	638.54	7.52	631.02	10.90	627.64	11.65	626.89	6.81	631.73
MW-6R	638.64	17.41	621.23	17.92	620.72	18.41	620.23	17.46	621.18
P-1S	642.80	5.49	637.31	7.09	635.71	9.80	633.00	4.46	638.34
MW-1R	645.36	7.36	638.00	8.56	636.80	11.51	633.85	5.39	639.97
MW-1S	645.40	5.74	639.66	8.29	637.11	11.28	634.12	4.45	640.95
MW-7S	642.85	4.61	638.24	8.93	633.92	>11.25	<631.60	3.58	639.27
MW-7R	642.28	5.77	636.51	7.02	635.26	9.31	632.97	4.63	637.65

Center of Cap (North to South)

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
P-5S	637.54	11.29	626.25	13.20	624.34	Dry	<624.09	8.31	629.23
P-5R	637.88	Dry	<618.86	0.00	0.00	Dry	<617.79	18.93	618.95
MW-5S	636.28	11.60	624.68	0.00	0.00	13.98	622.30	9.62	626.66
P-2R	646.96	8.76	638.20	11.47	635.49	14.11	632.85	6.52	640.44
P-2S	646.44	8.72	637.72	10.32	636.12	12.48	633.96	7.66	638.78
MW-2S	644.85	6.63	638.22	8.21	636.64	10.71	634.14	5.45	639.40

West of Cap (North to South)

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
MW-4S	637.18	13.51	623.67	15.24	621.94	Dry	<621.81	12.52	624.66
MW-4R	637.02	26.76	610.26	27.61	609.41	27.34	609.68	25.91	611.11
P-4S	636.54	15.47	621.07	15.64	620.90	15.71	<620.61	14.26	622.28
MW-3S	637.64	17.23	620.41	17.80	619.84	17.51	620.13	16.24	621.40
P-3R	639.92	19.71	620.21	19.62	620.30	19.61	620.31	19.59	620.33
P-3S	639.46	19.10	620.36	19.33	620.13	19.08	620.38	18.09	621.37
OW-3R	638.78	23.15	615.63	23.93	614.85	23.81	614.97	22.69	616.09

West of Trench (North to South)

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
OW-1FR	620.42	9.96	610.46	11.08	609.34	11.77	608.65	9.11	611.31
P97-5	613.65	3.71	609.94	4.74	608.91	5.42	608.23	2.87	610.78
MW-10S	615.15	4.13	611.02	5.26	609.89	Dry	--	3.38	611.77
MW-10R	615.47	4.91	610.56	6.29	609.18	6.91	608.56	4.02	611.45
P97-4	614.8	4.59	610.21	5.72	609.08	6.58	608.22	3.72	611.08
MW-8S	617.28	7.16	610.12	7.15	610.13	Dry	<610.28	6.04	611.24
MW-8R	617.38	7.13	610.25	8.28	609.10	8.69	608.69	6.34	611.04
P97-3	617.66	7.14	610.52	8.48	609.18	8.58	609.08	6.29	611.37
MW-9RD	619.13	8.01	611.12	6.61	612.52	7.85	611.28	8.23	610.90
MW-9R	619.17	8.40	610.77	9.89	609.28	10.64	608.53	7.49	611.68
MW-9S	619.91	8.90	611.01	0.00	0.00	Dry	<609.56	8.01	611.90
OW-2FR	624.14	12.99	611.15	12.92	611.22	12.45	611.69	12.41	611.73
P97-2	619.07	7.34	611.73	8.76	610.31	8.70	610.37	7.00	612.07
P97-1	619.97	7.18	612.79	8.53	611.44	8.65	611.32	7.03	612.94
MW-12R	621.59	7.82	613.77	9.92	611.67	11.31	610.28	8.02	613.57
MW-12S	621.17	3.83	617.34	0.00	0.00	7.38	<611.79	4.11	617.06

West of Smokes Creek (North to South)

Well ID	Monitoring Point (TIC)	Depth To Water (ft)	1st Quarter Elevation (ft)	Depth To Water (ft)	2nd Quarter Elevation (ft)	Depth To Water (ft)	3rd Quarter Elevation (ft)	Depth To Water (ft)	4th Quarter Elevation (ft)
MW-13R	615.14	5.68	609.46	6.67	608.47	7.55	607.59	4.96	610.18
MW-14R	618.55	4.91	613.64	5.39	613.16	5.73	612.82	5.19	613.36

Table 2

Detection Summary

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: Trip Blank — Lab Sample ID: 480-191354-1

No Detections.

Client Sample ID: DUP — Lab Sample ID: 480-191354-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	24		5.0		ug/L	1		8260C	Total/NA
Methylcyclohexane	9.9		5.0		ug/L	1		8260C	Total/NA

Client Sample ID: MW-13R — Lab Sample ID: 480-191354-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	1700	F1	34		ug/L	40		8260C	Total/NA

Client Sample ID: MW-15R — Lab Sample ID: 480-191354-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	26		5.0		ug/L	1		8260C	Total/NA
Methylcyclohexane	11		5.0		ug/L	1		8260C	Total/NA

Client Sample ID: MW-3S — Lab Sample ID: 480-191354-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	24000		430		ug/L	500		8260C	Total/NA
Trichloroethene	310		230		ug/L	500		8260C	Total/NA

Client Sample ID: MW-7R — Lab Sample ID: 480-191354-6

No Detections.

Client Sample ID: MW-8R — Lab Sample ID: 480-191354-7

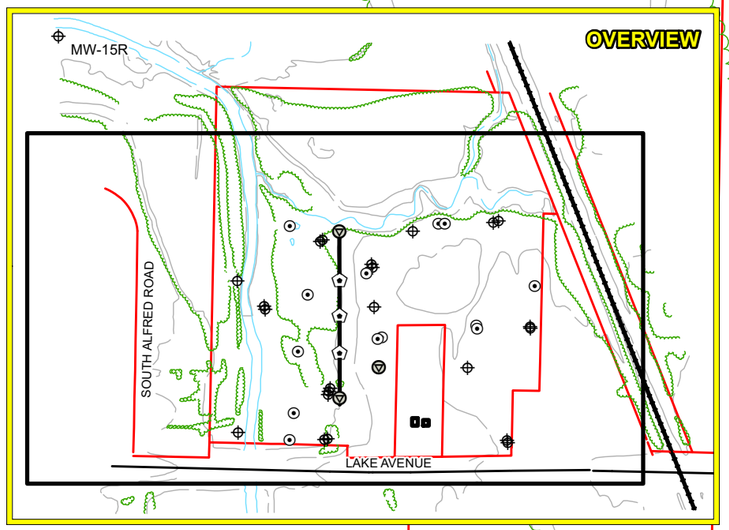
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	12		5.0		ug/L	4		8260C	Total/NA
o-Chlorotoluene	170		5.0		ug/L	4		8260C	Total/NA

Client Sample ID: MW-9R — Lab Sample ID: 480-191354-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	130		5.0		ug/L	4		8260C	Total/NA
1,1-Dichloroethane	240		5.0		ug/L	4		8260C	Total/NA
Chloroethane	39		5.0		ug/L	4		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

FIGURES



N

ON SITE TRIBUTARY OF SMOKES CREEK

SOUTH BRANCH OF SMOKES CREEK

GROUNDWATER COLLECTION TRENCH

SOUTH ALFRED ROAD

LAKE AVENUE

WATER TREATMENT BUILDING

SOIL VAPOR EXTRACTION BUILDING

P97-5
OW-1FR
MW-10S
MW-10R
MW-13R
P97-4
MW-8S
MW-8R
EW3
EW2
EW1
P97-3
P97-2
P97-1
MW-14R
MW-9RD
MW-9R
MW-9S
OW-2FR
MW-12S
MW-12R
MW-4S
MW-4R
P-4S
MW-3S
OW-3R
P-5R
P-5R
MW-5S
MW-6R
MW-6S
P-1S
P-2R
P-2S
P-3R
P-3S
MW-1R
MW-1S
MW-2S
MW-7S
MW-7R

Legend

- Extraction Well
- Monitoring Wel
- Observation Well
- Piezometer
- Edge of Water
- Property Line
- Existing Ground Elevation Contour

100 0 100 Feet

CHEM-TROL
SITE PLAN

AECOM

FIGURE 1

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SOUTH ALFRED ROAD

SOUTH BRANCH OF SMOKES CREEK

ON SITE TRIBUTARY OF SMOKES CREEK

P97-5, 609.94

MW-10R, 610.56

MW-13R, 609.46

P97-4, 610.21

MW-8R, 610.25

P97-3, 610.52

MW-14R, 613.64

P97-2, 611.73

P97-1, 612.79

MW-12R, 613.77

MW-9R, 610.77

GROUNDWATER COLLECTION TRENCH

OW-1FR, 610.46

MW-4R, 610.26

EW3, 607.01

EW2, 609.25

EW1, 608.64

OW-2FR, 611.15

P-5R, DRY

MW-6R, 621.23

P-3R, 620.21

OW-3R, 615.63

P-2R, 638.20

MW-1R, 638.00

WATER TREATMENT BUILDING

SOIL VAPOR EXTRACTION BUILDING

MW-7R, 636.51

LAKE AVENUE

Legend

- Extraction Well
- Monitoring Well
- Observation Well
- Piezometer
- Groundwater Flow Direction
- Groundwater Elevation Contour
- Edge of Water
- Property Line
- Existing Ground Elevation Contour

MW-6R, 621.23
Location ID — Groundwater Elevation

100 0 100 Feet

CHEM-TROL
BEDROCK GROUNDWATER CONTOURS
MARCH 25, 2021

AECOM

FIGURE 5

C:\Chemtrol\FIRST QUARTER 2021 GW CONTOURS.mxd 8/17/2021

N

ON SITE TRIBUTARY OF SMOKES CREEK

SOUTH BRANCH OF SMOKES CREEK

SOUTH ALFRED ROAD

LAKE AVENUE

P97-5, 608.91

OW-1FR, 609.34

P-5R, DRY

MW-6R, 620.72

MW-10R, 609.18

MW-4R, 609.41

EW3, 607.37

MW-13R, 608.47

P97-4, 609.08

MW-8R, 609.10

EW2, 608.40

MW-1R, 636.80

P-2R, 635.49

P-3R, 620.30

EW1, 607.86

P97-3, 609.18

OW-3R, 614.85

MW-9R, 609.28

OW-2FR, 611.22

GROUNDWATER COLLECTION TRENCH

WATER TREATMENT BUILDING

SOIL VAPOR EXTRACTION BUILDING

P97-2, 610.31

MW-14R, 613.16

P97-1, 611.44

MW-12R, 611.67

MW-7R, 635.26

608 610 612 614 616 618 620 622 624 626 628 630 632 634 636

Legend

- Extraction Well
- Monitoring Well
- Observation Well
- Piezometer
- Groundwater Flow Direction
- Groundwater Elevation Contour
- Edge of Water
- Property Line
- Existing Ground Elevation Contour

MW-6R, 620.72
Location ID — Groundwater Elevation

100 0 100 Feet

CHEM-TROL
BEDROCK GROUNDWATER CONTOURS
JUNE 22, 2021

AECOM

FIGURE 5

C:\Chemtrol\SECOND QUARTER 2021 GW CONTOURS.mxd 11/4/2021

N

ON SITE TRIBUTARY OF SMOKES CREEK

SOUTH BRANCH OF SMOKES CREEK

SOUTH ALFRED ROAD

LAKE AVENUE

P97-5, 608.23

MW-10R, 608.56

MW-13R, 607.59

P97-4, 608.22

MW-8R, 608.69

P97-3, 609.08

MW-9R, 608.53

P97-2, 610.37

MW-14R, 612.82

P97-1, 611.32

MW-12R, 610.28

OW-1FR, 608.65

MW-4R, 609.68

EW3, 608.69

EW2, 608.32

EW1, 607.98

OW-2FR, 611.69

GROUNDWATER COLLECTION TRENCH

P-5R, DRY

MW-6R, 620.23

P-3R, 620.31

OW-3R, 614.97

P-2R, 632.85

MW-1R, 633.85

MW-7R, 632.97

WATER TREATMENT BUILDING

SOIL VAPOR EXTRACTION BUILDING

608 610 612 614 616 618 620 622 624 626 628 630 632

610 620 630 640

Legend

- Extraction Well
- Monitoring Well
- Observation Well
- Piezometer
- Groundwater Flow Direction
- Groundwater Elevation Contour
- Edge of Water
- Property Line
- Existing Ground Elevation Contour

MW-6R, 620.23
Location ID — Groundwater Elevation

100 0 100 Feet

CHEM-TROL
BEDROCK GROUNDWATER CONTOURS
SEPTEMBER 20, 2021

AECOM

FIGURE 5

C:\Chemtrol\THIRD QUARTER 2021 GW CONTOURS.mxd 9/27/2021

N

ON SITE TRIBUTARY OF SMOKES CREEK

SOUTH BRANCH OF SMOKES CREEK

SOUTH ALFRED ROAD

LAKE AVENUE

P97-5, 610.78
OW-1FR, 611.31
P-5R, 618.95
MW-6R, 621.18
MW-10R, 611.45
MW-4R, 611.11
EW3, 608.08
MW-13R, 610.18
P97-4, 611.08
MW-8R, 611.04
EW2, 609.23
P-2R, 640.44
MW-1R, 639.97
P-3R, 620.33
EW1, 611.63
P97-3, 611.37
OW-3R, 616.09
MW-9R, 611.68
OW-2FR, 611.73
GROUNDWATER COLLECTION TRENCH
WATER TREATMENT BUILDING
SOIL VAPOR EXTRACTION BUILDING
P97-2, 612.07
MW-14R, 613.36
P97-1, 612.94
MW-12R, 613.57
MW-7R, 637.65

609 610 611 612 614 616 618 620 622 624 626 628 630 632 634 636 638 640

Legend

- Extraction Well
- Monitoring Well
- Observation Well
- Piezometer
- Groundwater Flow Direction
- Groundwater Elevation Contour
- Edge of Water
- Property Line
- Existing Ground Elevation Contour

MW-6R, 621.18
Location ID — Groundwater Elevation

100 0 100 Feet

CHEM-TROL
BEDROCK GROUNDWATER CONTOURS
DECEMBER 8, 2021

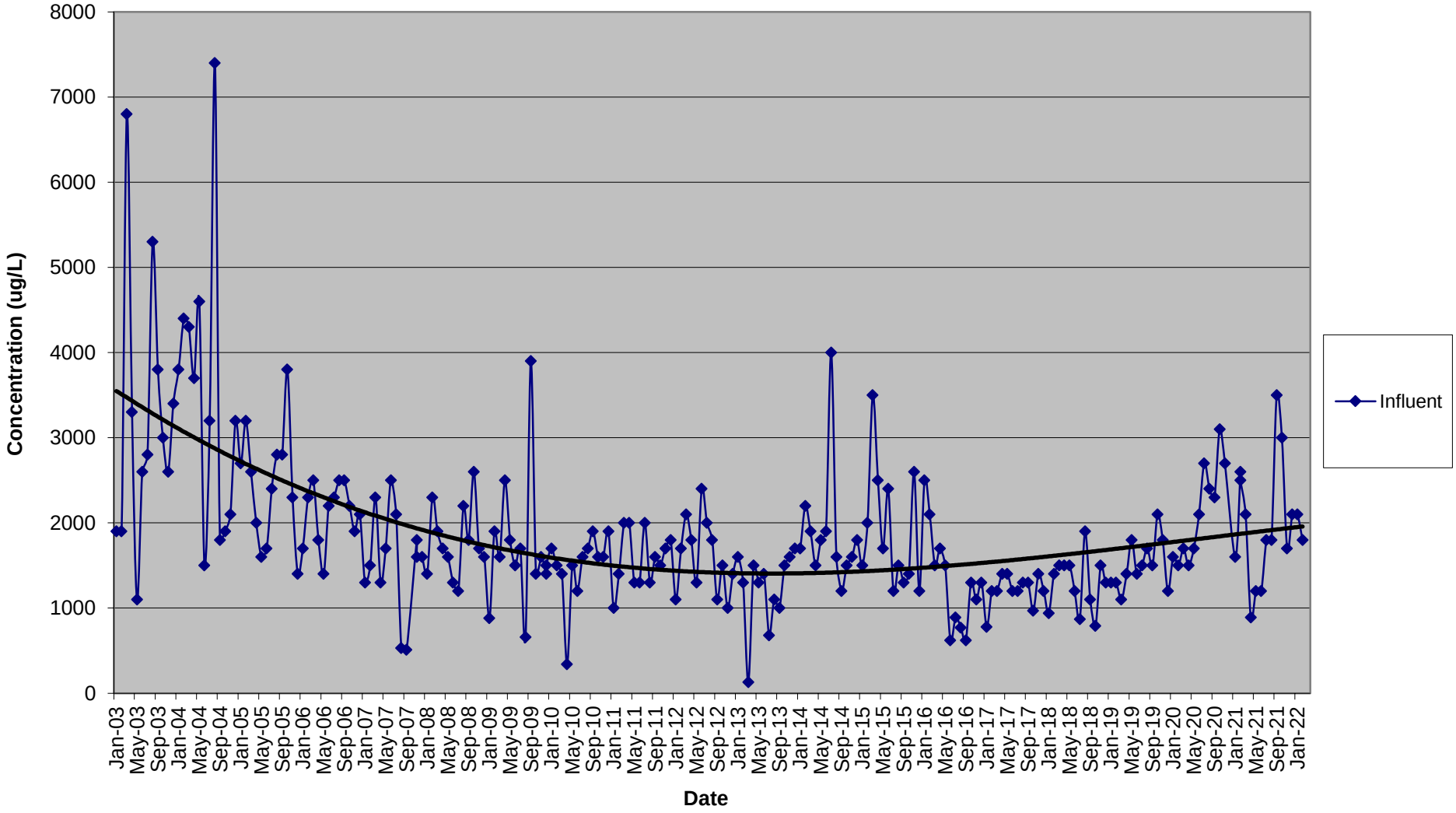
AECOM

FIGURE 5

J:\Projects\60526520_ChmTri2017\900-CAD-GIS\920-GIS or Graphics\Arcmap\FOURTH QUARTER 2021 GW CONTOURS.mxd 2/1/2022

FIGURE 6

Chem-Trol Groundwater Treatment System
Influent o-Chlorotoluene Concentration
January 2003 - February 2022



ATTACHMENT A

Completed IC/EC Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 915015

Site Name Chem-Trol

Site Address: Lake Avenue Zip Code: 14107
City/Town: Hamburg
County: Erie
Site Acreage: 17.520

Reporting Period: February 15, 2021 to February 15, 2022

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	X	
7. Are all ICs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 915015 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
151.02-1-14.1	SC Holdlings Inc./Waste Management	Ground Water Use Restriction
		Monitoring Plan
		O&M Plan
		Landuse Restriction
		Building Use Restriction

The controls identified in the Declaration of Covenants and Restrictions, recorded with Erie County on March 25, 2004, include but are not limited to the following: The owner of the Property shall maintain the cap covering the Property by maintaining its grass cover, or after obtaining written approval from the Relevant Agency, by capping the Property with another material. The property is prohibited from being used for purposes other than for industrial or commercial use, excluding use for day care, child care and medical care; the use of groundwater underlying the property is prohibited without treatment to render it safe for drinking water or industrial purposes, except that the groundwater may be reasonably used as necessary to conduct tests to monitor contamination levels of the groundwater. These restrictive covenants are binding and shall run with the land.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
151.02-1-14.1	Groundwater Treatment System
	Cover System
	Groundwater Containment
	Monitoring Wells
	Fencing/Access Control
	Leachate Collection

Remediation was completed in two phases consisting of Source Control Elements and Groundwater Control Elements. These elements are summarized as follows:

Source Control Elements:

1. Hot Spot Soils Removal.
2. Tributary Sediment Excavation/Disposal.
3. Site Soils Cover.
4. Soil Vapor Extraction. Passive state with one year evaluation starting January 2010. Passive state permanently approved on May 29, 2011.

Groundwater Control Elements:

1. Groundwater extraction from three extraction wells.
2. On-site groundwater treatment with discharge compliance monitoring.
2. Groundwater quality monitoring.

Groundwater intercept, extraction, treatment and discharge compliance monitoring. Periodic measuring of groundwater levels and plotting to develop groundwater contours and directional gradients. Annual groundwater quality monitoring to determine performance of remedy. Ongoing site management activities to continue with remedy and protection of public health and the environment.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. 915015

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Ryan Donovan (print name) at 600 New Ludlow Road, South Hadley, MA 01075 (print business address),

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

E. Ryan Donovan
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

03/10/22
Date

EC CERTIFICATIONS

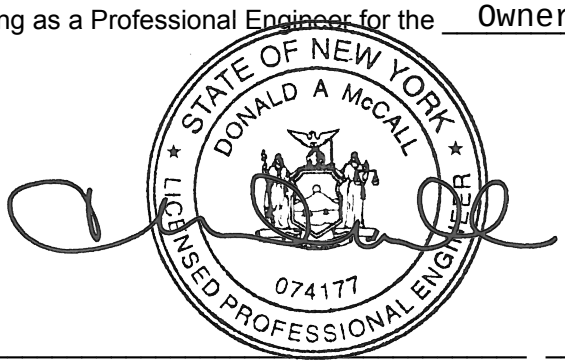
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Donald McCall (print name) at 1 John James Audubon Pkwy, Suite 210, Amherst, NY 14228 (print business address),

am certifying as a Professional Engineer for the Owner (Owner or Remedial Party)



March 10, 2002

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

ATTACHMENT B

2021 Annual Groundwater Sample Laboratory Report

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-191354-1
Client Project/Site: ChemTrol Site - Annual Groundwater
Sampling Event: ChemTrol Annual Groundwater (9)

For:
Waste Management
600 New Ludlow Road
South Hadley, Massachusetts 01075

Attn: Ryan Donovan

Authorized for release by:
10/29/2021 12:55:04 PM
Joshua Velez, Project Management Assistant I
joshua.velez@eurofinset.com

Designee for

Ryan VanDette, Project Manager II
(716)504-9830
Ryan.VanDette@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

Table of Contents

Definitions/Glossary

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

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

Case Narrative

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Job ID: 480-191354-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-191354-1

Comments
No additional comments.

Receipt
The samples were received on 10/23/2021 11:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-13R (480-191354-3), MW-8R (480-191354-7), MW-9R (480-191354-8), (480-191354-A-3 MS) and (480-191354-A-3 MSD). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-602169 recovered outside acceptance criteria, low biased, for Trichlorofluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The associated samples are impacted: Trip Blank (480-191354-1), DUP (480-191354-2), MW-13R (480-191354-3), MW-15R (480-191354-4), MW-7R (480-191354-6), MW-8R (480-191354-7) and MW-9R (480-191354-8).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-602367 recovered outside acceptance criteria, low biased, for Trichlorofluoromethane and Dichlorofluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-3S (480-191354-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The results reported for the following samples do not concur with results previously reported for this site: MW-8R (480-191354-7) and MW-9R (480-191354-8). Reanalysis was performed, and the result(s) confirmed.

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

Detection Summary

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: Trip Blank — Lab Sample ID: 480-191354-1

No Detections.

Client Sample ID: DUP — Lab Sample ID: 480-191354-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	24		5.0		ug/L	1		8260C	Total/NA
Methylcyclohexane	9.9		5.0		ug/L	1		8260C	Total/NA

Client Sample ID: MW-13R — Lab Sample ID: 480-191354-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	1700	F1	34		ug/L	40		8260C	Total/NA

Client Sample ID: MW-15R — Lab Sample ID: 480-191354-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	26		5.0		ug/L	1		8260C	Total/NA
Methylcyclohexane	11		5.0		ug/L	1		8260C	Total/NA

Client Sample ID: MW-3S — Lab Sample ID: 480-191354-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Chlorotoluene	24000		430		ug/L	500		8260C	Total/NA
Trichloroethene	310		230		ug/L	500		8260C	Total/NA

Client Sample ID: MW-7R — Lab Sample ID: 480-191354-6

No Detections.

Client Sample ID: MW-8R — Lab Sample ID: 480-191354-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	12		5.0		ug/L	4		8260C	Total/NA
o-Chlorotoluene	170		5.0		ug/L	4		8260C	Total/NA

Client Sample ID: MW-9R — Lab Sample ID: 480-191354-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	130		5.0		ug/L	4		8260C	Total/NA
1,1-Dichloroethane	240		5.0		ug/L	4		8260C	Total/NA
Chloroethane	39		5.0		ug/L	4		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: Trip Blank

Date Collected: 10/22/21 00:00
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-1

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/27/21 15:26	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 15:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 15:26	1
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 15:26	1
1,1-Dichloroethane	ND		5.0		ug/L			10/27/21 15:26	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 15:26	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 15:26	1
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 15:26	1
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 15:26	1
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 15:26	1
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 15:26	1
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 15:26	1
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 15:26	1
2-Butanone (MEK)	ND		25		ug/L			10/27/21 15:26	1
2-Hexanone	ND		25		ug/L			10/27/21 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 15:26	1
Acetone	ND		25		ug/L			10/27/21 15:26	1
Benzene	ND		5.0		ug/L			10/27/21 15:26	1
Bromodichloromethane	ND		5.0		ug/L			10/27/21 15:26	1
Bromoform	ND		5.0		ug/L			10/27/21 15:26	1
Bromomethane	ND		5.0		ug/L			10/27/21 15:26	1
Carbon disulfide	ND		5.0		ug/L			10/27/21 15:26	1
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 15:26	1
Chlorobenzene	ND		5.0		ug/L			10/27/21 15:26	1
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 15:26	1
Chloroethane	ND		5.0		ug/L			10/27/21 15:26	1
Chloroform	ND		5.0		ug/L			10/27/21 15:26	1
Chloromethane	ND		5.0		ug/L			10/27/21 15:26	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 15:26	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 15:26	1
Cyclohexane	ND		5.0		ug/L			10/27/21 15:26	1
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 15:26	1
Ethylbenzene	ND		5.0		ug/L			10/27/21 15:26	1
Isopropylbenzene	ND		5.0		ug/L			10/27/21 15:26	1
Methyl acetate	ND		5.0		ug/L			10/27/21 15:26	1
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 15:26	1
Methylcyclohexane	ND		5.0		ug/L			10/27/21 15:26	1
Methylene Chloride	ND		5.0		ug/L			10/27/21 15:26	1
o-Chlorotoluene	ND		5.0		ug/L			10/27/21 15:26	1
Styrene	ND		5.0		ug/L			10/27/21 15:26	1
Tetrachloroethene	ND		5.0		ug/L			10/27/21 15:26	1
Toluene	ND		5.0		ug/L			10/27/21 15:26	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 15:26	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 15:26	1
Trichloroethene	ND		5.0		ug/L			10/27/21 15:26	1
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 15:26	1
Vinyl chloride	ND		5.0		ug/L			10/27/21 15:26	1
Xylenes, Total	ND		15		ug/L			10/27/21 15:26	1

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: Trip Blank
Lab Sample ID: 480-191354-1
Date Collected: 10/22/21 00:00
Matrix: Water
Date Received: 10/23/21 11:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		10/27/21 15:26	1
Toluene-d8 (Surr)	103		80 - 120		10/27/21 15:26	1
4-Bromofluorobenzene (Surr)	96		73 - 120		10/27/21 15:26	1
Dibromofluoromethane (Surr)	96		75 - 123		10/27/21 15:26	1

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: DUP
Date Collected: 10/22/21 00:00
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/27/21 15:49	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 15:49	1
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 15:49	1
1,1-Dichloroethane	ND		5.0		ug/L			10/27/21 15:49	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 15:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 15:49	1
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 15:49	1
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 15:49	1
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 15:49	1
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 15:49	1
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 15:49	1
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 15:49	1
2-Butanone (MEK)	ND		25		ug/L			10/27/21 15:49	1
2-Hexanone	ND		25		ug/L			10/27/21 15:49	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 15:49	1
Acetone	ND		25		ug/L			10/27/21 15:49	1
Benzene	ND		5.0		ug/L			10/27/21 15:49	1
Bromodichloromethane	ND		5.0		ug/L			10/27/21 15:49	1
Bromoform	ND		5.0		ug/L			10/27/21 15:49	1
Bromomethane	ND		5.0		ug/L			10/27/21 15:49	1
Carbon disulfide	ND		5.0		ug/L			10/27/21 15:49	1
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 15:49	1
Chlorobenzene	ND		5.0		ug/L			10/27/21 15:49	1
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 15:49	1
Chloroethane	ND		5.0		ug/L			10/27/21 15:49	1
Chloroform	ND		5.0		ug/L			10/27/21 15:49	1
Chloromethane	ND		5.0		ug/L			10/27/21 15:49	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 15:49	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 15:49	1
Cyclohexane	**24**		5.0		ug/L			10/27/21 15:49	1
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 15:49	1
Ethylbenzene	ND		5.0		ug/L			10/27/21 15:49	1
Isopropylbenzene	ND		5.0		ug/L			10/27/21 15:49	1
Methyl acetate	ND		5.0		ug/L			10/27/21 15:49	1
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 15:49	1
Methylcyclohexane	**9.9**		5.0		ug/L			10/27/21 15:49	1
Methylene Chloride	ND		5.0		ug/L			10/27/21 15:49	1
o-Chlorotoluene	ND		5.0		ug/L			10/27/21 15:49	1
Styrene	ND		5.0		ug/L			10/27/21 15:49	1
Tetrachloroethene	ND		5.0		ug/L			10/27/21 15:49	1
Toluene	ND		5.0		ug/L			10/27/21 15:49	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 15:49	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 15:49	1
Trichloroethene	ND		5.0		ug/L			10/27/21 15:49	1
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 15:49	1
Vinyl chloride	ND		5.0		ug/L			10/27/21 15:49	1
Xylenes, Total	ND		15		ug/L			10/27/21 15:49	1

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: DUP
Date Collected: 10/22/21 00:00
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		10/27/21 15:49	1
Toluene-d8 (Surr)	103		80 - 120		10/27/21 15:49	1
4-Bromofluorobenzene (Surr)	97		73 - 120		10/27/21 15:49	1
Dibromofluoromethane (Surr)	98		75 - 123		10/27/21 15:49	1

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-13R
Date Collected: 10/22/21 13:47
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		33		ug/L			10/27/21 16:12	40
1,1,2,2-Tetrachloroethane	ND		8.4		ug/L			10/27/21 16:12	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		12		ug/L			10/27/21 16:12	40
1,1,2-Trichloroethane	ND		9.2		ug/L			10/27/21 16:12	40
1,1-Dichloroethane	ND		15		ug/L			10/27/21 16:12	40
1,2,4-Trichlorobenzene	ND		16		ug/L			10/27/21 16:12	40
1,2-Dibromo-3-Chloropropane	ND		16		ug/L			10/27/21 16:12	40
1,2-Dibromoethane	ND		29		ug/L			10/27/21 16:12	40
1,2-Dichlorobenzene	ND		32		ug/L			10/27/21 16:12	40
1,2-Dichloroethane	ND		8.4		ug/L			10/27/21 16:12	40
1,2-Dichloropropane	ND	F1	29		ug/L			10/27/21 16:12	40
1,3-Dichlorobenzene	ND		31		ug/L			10/27/21 16:12	40
1,4-Dichlorobenzene	ND		34		ug/L			10/27/21 16:12	40
2-Butanone (MEK)	ND		53		ug/L			10/27/21 16:12	40
2-Hexanone	ND		50		ug/L			10/27/21 16:12	40
4-Methyl-2-pentanone (MIBK)	ND		84		ug/L			10/27/21 16:12	40
Acetone	ND	F2	120		ug/L			10/27/21 16:12	40
Benzene	ND		16		ug/L			10/27/21 16:12	40
Bromodichloromethane	ND		16		ug/L			10/27/21 16:12	40
Bromoform	ND		10		ug/L			10/27/21 16:12	40
Bromomethane	ND		28		ug/L			10/27/21 16:12	40
Carbon disulfide	ND	F2	7.6		ug/L			10/27/21 16:12	40
Carbon tetrachloride	ND		11		ug/L			10/27/21 16:12	40
Chlorobenzene	ND		30		ug/L			10/27/21 16:12	40
Chlorodibromomethane	ND		13		ug/L			10/27/21 16:12	40
Chloroethane	ND		13		ug/L			10/27/21 16:12	40
Chloroform	ND		14		ug/L			10/27/21 16:12	40
Chloromethane	ND		14		ug/L			10/27/21 16:12	40
cis-1,2-Dichloroethene	ND		32		ug/L			10/27/21 16:12	40
cis-1,3-Dichloropropene	ND		14		ug/L			10/27/21 16:12	40
Cyclohexane	ND	F1	7.2		ug/L			10/27/21 16:12	40
Dichlorofluoromethane	ND		14		ug/L			10/27/21 16:12	40
Ethylbenzene	ND		30		ug/L			10/27/21 16:12	40
Isopropylbenzene	ND		32		ug/L			10/27/21 16:12	40
Methyl acetate	ND		52		ug/L			10/27/21 16:12	40
Methyl tert-butyl ether	ND		6.4		ug/L			10/27/21 16:12	40
Methylcyclohexane	ND		6.4		ug/L			10/27/21 16:12	40
Methylene Chloride	ND		18		ug/L			10/27/21 16:12	40
o-Chlorotoluene	**1700**	**F1**	34		ug/L			10/27/21 16:12	40
Styrene	ND		29		ug/L			10/27/21 16:12	40
Tetrachloroethene	ND	F1	14		ug/L			10/27/21 16:12	40
Toluene	ND	F1	20		ug/L			10/27/21 16:12	40
trans-1,2-Dichloroethene	ND		36		ug/L			10/27/21 16:12	40
trans-1,3-Dichloropropene	ND		15		ug/L			10/27/21 16:12	40
Trichloroethene	ND		18		ug/L			10/27/21 16:12	40
Trichlorofluoromethane	ND		35		ug/L			10/27/21 16:12	40
Vinyl chloride	ND		36		ug/L			10/27/21 16:12	40
Xylenes, Total	ND		26		ug/L			10/27/21 16:12	40

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-13R
Date Collected: 10/22/21 13:47
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		10/27/21 16:12	40
Toluene-d8 (Surr)	102		80 - 120		10/27/21 16:12	40
4-Bromofluorobenzene (Surr)	95		73 - 120		10/27/21 16:12	40
Dibromofluoromethane (Surr)	94		75 - 123		10/27/21 16:12	40

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-15R

Date Collected: 10/22/21 13:08
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/27/21 16:35	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 16:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 16:35	1
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 16:35	1
1,1-Dichloroethane	ND		5.0		ug/L			10/27/21 16:35	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 16:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 16:35	1
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 16:35	1
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 16:35	1
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 16:35	1
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 16:35	1
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 16:35	1
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 16:35	1
2-Butanone (MEK)	ND		25		ug/L			10/27/21 16:35	1
2-Hexanone	ND		25		ug/L			10/27/21 16:35	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 16:35	1
Acetone	ND		25		ug/L			10/27/21 16:35	1
Benzene	ND		5.0		ug/L			10/27/21 16:35	1
Bromodichloromethane	ND		5.0		ug/L			10/27/21 16:35	1
Bromoform	ND		5.0		ug/L			10/27/21 16:35	1
Bromomethane	ND		5.0		ug/L			10/27/21 16:35	1
Carbon disulfide	ND		5.0		ug/L			10/27/21 16:35	1
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 16:35	1
Chlorobenzene	ND		5.0		ug/L			10/27/21 16:35	1
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 16:35	1
Chloroethane	ND		5.0		ug/L			10/27/21 16:35	1
Chloroform	ND		5.0		ug/L			10/27/21 16:35	1
Chloromethane	ND		5.0		ug/L			10/27/21 16:35	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 16:35	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 16:35	1
Cyclohexane	**26**		5.0		ug/L			10/27/21 16:35	1
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 16:35	1
Ethylbenzene	ND		5.0		ug/L			10/27/21 16:35	1
Isopropylbenzene	ND		5.0		ug/L			10/27/21 16:35	1
Methyl acetate	ND		5.0		ug/L			10/27/21 16:35	1
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 16:35	1
Methylcyclohexane	**11**		5.0		ug/L			10/27/21 16:35	1
Methylene Chloride	ND		5.0		ug/L			10/27/21 16:35	1
o-Chlorotoluene	ND		5.0		ug/L			10/27/21 16:35	1
Styrene	ND		5.0		ug/L			10/27/21 16:35	1
Tetrachloroethene	ND		5.0		ug/L			10/27/21 16:35	1
Toluene	ND		5.0		ug/L			10/27/21 16:35	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 16:35	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 16:35	1
Trichloroethene	ND		5.0		ug/L			10/27/21 16:35	1
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 16:35	1
Vinyl chloride	ND		5.0		ug/L			10/27/21 16:35	1
Xylenes, Total	ND		15		ug/L			10/27/21 16:35	1

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: MW-15R
Lab Sample ID: 480-191354-4
Date Collected: 10/22/21 13:08
Matrix: Water
Date Received: 10/23/21 11:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		10/27/21 16:35	1
Toluene-d8 (Surr)	102		80 - 120		10/27/21 16:35	1
4-Bromofluorobenzene (Surr)	97		73 - 120		10/27/21 16:35	1
Dibromofluoromethane (Surr)	99		75 - 123		10/27/21 16:35	1

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-3S
Date Collected: 10/22/21 16:08
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		410		ug/L			10/28/21 12:55	500
1,1,2,2-Tetrachloroethane	ND		110		ug/L			10/28/21 12:55	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		160		ug/L			10/28/21 12:55	500
1,1,2-Trichloroethane	ND		120		ug/L			10/28/21 12:55	500
1,1-Dichloroethane	ND		190		ug/L			10/28/21 12:55	500
1,2,4-Trichlorobenzene	ND		210		ug/L			10/28/21 12:55	500
1,2-Dibromo-3-Chloropropane	ND		200		ug/L			10/28/21 12:55	500
1,2-Dibromoethane	ND		370		ug/L			10/28/21 12:55	500
1,2-Dichlorobenzene	ND		400		ug/L			10/28/21 12:55	500
1,2-Dichloroethane	ND		110		ug/L			10/28/21 12:55	500
1,2-Dichloropropane	ND		360		ug/L			10/28/21 12:55	500
1,3-Dichlorobenzene	ND		390		ug/L			10/28/21 12:55	500
1,4-Dichlorobenzene	ND		420		ug/L			10/28/21 12:55	500
2-Butanone (MEK)	ND		660		ug/L			10/28/21 12:55	500
2-Hexanone	ND		620		ug/L			10/28/21 12:55	500
4-Methyl-2-pentanone (MIBK)	ND		1100		ug/L			10/28/21 12:55	500
Acetone	ND		1500		ug/L			10/28/21 12:55	500
Benzene	ND		210		ug/L			10/28/21 12:55	500
Bromodichloromethane	ND		200		ug/L			10/28/21 12:55	500
Bromoform	ND		130		ug/L			10/28/21 12:55	500
Bromomethane	ND		350		ug/L			10/28/21 12:55	500
Carbon disulfide	ND		95		ug/L			10/28/21 12:55	500
Carbon tetrachloride	ND		140		ug/L			10/28/21 12:55	500
Chlorobenzene	ND		380		ug/L			10/28/21 12:55	500
Chlorodibromomethane	ND		160		ug/L			10/28/21 12:55	500
Chloroethane	ND		160		ug/L			10/28/21 12:55	500
Chloroform	ND		170		ug/L			10/28/21 12:55	500
Chloromethane	ND		180		ug/L			10/28/21 12:55	500
cis-1,2-Dichloroethene	ND		410		ug/L			10/28/21 12:55	500
cis-1,3-Dichloropropene	ND		180		ug/L			10/28/21 12:55	500
Cyclohexane	ND		90		ug/L			10/28/21 12:55	500
Dichlorofluoromethane	ND		170		ug/L			10/28/21 12:55	500
Ethylbenzene	ND		370		ug/L			10/28/21 12:55	500
Isopropylbenzene	ND		400		ug/L			10/28/21 12:55	500
Methyl acetate	ND		650		ug/L			10/28/21 12:55	500
Methyl tert-butyl ether	ND		80		ug/L			10/28/21 12:55	500
Methylcyclohexane	ND		80		ug/L			10/28/21 12:55	500
Methylene Chloride	ND		220		ug/L			10/28/21 12:55	500
o-Chlorotoluene	**24000**		430		ug/L			10/28/21 12:55	500
Styrene	ND		370		ug/L			10/28/21 12:55	500
Tetrachloroethene	ND		180		ug/L			10/28/21 12:55	500
Toluene	ND		260		ug/L			10/28/21 12:55	500
trans-1,2-Dichloroethene	ND		450		ug/L			10/28/21 12:55	500
trans-1,3-Dichloropropene	ND		190		ug/L			10/28/21 12:55	500
Trichloroethene	**310**		230		ug/L			10/28/21 12:55	500
Trichlorofluoromethane	ND		440		ug/L			10/28/21 12:55	500
Vinyl chloride	ND		450		ug/L			10/28/21 12:55	500
Xylenes, Total	ND		330		ug/L			10/28/21 12:55	500

Client Sample Results

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-3S
Date Collected: 10/22/21 16:08
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-5
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		10/28/21 12:55	500
Toluene-d8 (Surr)	102		80 - 120		10/28/21 12:55	500
4-Bromofluorobenzene (Surr)	96		73 - 120		10/28/21 12:55	500
Dibromofluoromethane (Surr)	100		75 - 123		10/28/21 12:55	500

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-7R
Date Collected: 10/22/21 16:39
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/27/21 17:21	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 17:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 17:21	1
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 17:21	1
1,1-Dichloroethane	ND		5.0		ug/L			10/27/21 17:21	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 17:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 17:21	1
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 17:21	1
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 17:21	1
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 17:21	1
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 17:21	1
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 17:21	1
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 17:21	1
2-Butanone (MEK)	ND		25		ug/L			10/27/21 17:21	1
2-Hexanone	ND		25		ug/L			10/27/21 17:21	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 17:21	1
Acetone	ND		25		ug/L			10/27/21 17:21	1
Benzene	ND		5.0		ug/L			10/27/21 17:21	1
Bromodichloromethane	ND		5.0		ug/L			10/27/21 17:21	1
Bromoform	ND		5.0		ug/L			10/27/21 17:21	1
Bromomethane	ND		5.0		ug/L			10/27/21 17:21	1
Carbon disulfide	ND		5.0		ug/L			10/27/21 17:21	1
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 17:21	1
Chlorobenzene	ND		5.0		ug/L			10/27/21 17:21	1
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 17:21	1
Chloroethane	ND		5.0		ug/L			10/27/21 17:21	1
Chloroform	ND		5.0		ug/L			10/27/21 17:21	1
Chloromethane	ND		5.0		ug/L			10/27/21 17:21	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 17:21	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 17:21	1
Cyclohexane	ND		5.0		ug/L			10/27/21 17:21	1
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 17:21	1
Ethylbenzene	ND		5.0		ug/L			10/27/21 17:21	1
Isopropylbenzene	ND		5.0		ug/L			10/27/21 17:21	1
Methyl acetate	ND		5.0		ug/L			10/27/21 17:21	1
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 17:21	1
Methylcyclohexane	ND		5.0		ug/L			10/27/21 17:21	1
Methylene Chloride	ND		5.0		ug/L			10/27/21 17:21	1
o-Chlorotoluene	ND		5.0		ug/L			10/27/21 17:21	1
Styrene	ND		5.0		ug/L			10/27/21 17:21	1
Tetrachloroethene	ND		5.0		ug/L			10/27/21 17:21	1
Toluene	ND		5.0		ug/L			10/27/21 17:21	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 17:21	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 17:21	1
Trichloroethene	ND		5.0		ug/L			10/27/21 17:21	1
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 17:21	1
Vinyl chloride	ND		5.0		ug/L			10/27/21 17:21	1
Xylenes, Total	ND		15		ug/L			10/27/21 17:21	1

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-7R
Date Collected: 10/22/21 16:39
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-6
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		10/27/21 17:21	1
Toluene-d8 (Surr)	103		80 - 120		10/27/21 17:21	1
4-Bromofluorobenzene (Surr)	96		73 - 120		10/27/21 17:21	1
Dibromofluoromethane (Surr)	99		75 - 123		10/27/21 17:21	1

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-8R
Date Collected: 10/22/21 14:32
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/27/21 17:44	4
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 17:44	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 17:44	4
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 17:44	4
1,1-Dichloroethane	**12**		5.0		ug/L			10/27/21 17:44	4
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 17:44	4
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 17:44	4
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 17:44	4
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 17:44	4
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 17:44	4
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 17:44	4
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 17:44	4
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 17:44	4
2-Butanone (MEK)	ND		25		ug/L			10/27/21 17:44	4
2-Hexanone	ND		25		ug/L			10/27/21 17:44	4
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 17:44	4
Acetone	ND		25		ug/L			10/27/21 17:44	4
Benzene	ND		5.0		ug/L			10/27/21 17:44	4
Bromodichloromethane	ND		5.0		ug/L			10/27/21 17:44	4
Bromoform	ND		5.0		ug/L			10/27/21 17:44	4
Bromomethane	ND		5.0		ug/L			10/27/21 17:44	4
Carbon disulfide	ND		5.0		ug/L			10/27/21 17:44	4
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 17:44	4
Chlorobenzene	ND		5.0		ug/L			10/27/21 17:44	4
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 17:44	4
Chloroethane	ND		5.0		ug/L			10/27/21 17:44	4
Chloroform	ND		5.0		ug/L			10/27/21 17:44	4
Chloromethane	ND		5.0		ug/L			10/27/21 17:44	4
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 17:44	4
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 17:44	4
Cyclohexane	ND		5.0		ug/L			10/27/21 17:44	4
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 17:44	4
Ethylbenzene	ND		5.0		ug/L			10/27/21 17:44	4
Isopropylbenzene	ND		5.0		ug/L			10/27/21 17:44	4
Methyl acetate	ND		5.2		ug/L			10/27/21 17:44	4
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 17:44	4
Methylcyclohexane	ND		5.0		ug/L			10/27/21 17:44	4
Methylene Chloride	ND		5.0		ug/L			10/27/21 17:44	4
o-Chlorotoluene	**170**		5.0		ug/L			10/27/21 17:44	4
Styrene	ND		5.0		ug/L			10/27/21 17:44	4
Tetrachloroethene	ND		5.0		ug/L			10/27/21 17:44	4
Toluene	ND		5.0		ug/L			10/27/21 17:44	4
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 17:44	4
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 17:44	4
Trichloroethene	ND		5.0		ug/L			10/27/21 17:44	4
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 17:44	4
Vinyl chloride	ND		5.0		ug/L			10/27/21 17:44	4
Xylenes, Total	ND		15		ug/L			10/27/21 17:44	4

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: MW-8R
Lab Sample ID: 480-191354-7
Date Collected: 10/22/21 14:32
Matrix: Water
Date Received: 10/23/21 11:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		10/27/21 17:44	4
Toluene-d8 (Surr)	102		80 - 120		10/27/21 17:44	4
4-Bromofluorobenzene (Surr)	97		73 - 120		10/27/21 17:44	4
Dibromofluoromethane (Surr)	102		75 - 123		10/27/21 17:44	4

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Client Sample ID: MW-9R
Date Collected: 10/22/21 15:23
Date Received: 10/23/21 11:30

Lab Sample ID: 480-191354-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**130**		5.0		ug/L			10/27/21 18:07	4
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 18:07	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 18:07	4
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 18:07	4
1,1-Dichloroethane	**240**		5.0		ug/L			10/27/21 18:07	4
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 18:07	4
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 18:07	4
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 18:07	4
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 18:07	4
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 18:07	4
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 18:07	4
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 18:07	4
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 18:07	4
2-Butanone (MEK)	ND		25		ug/L			10/27/21 18:07	4
2-Hexanone	ND		25		ug/L			10/27/21 18:07	4
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 18:07	4
Acetone	ND		25		ug/L			10/27/21 18:07	4
Benzene	ND		5.0		ug/L			10/27/21 18:07	4
Bromodichloromethane	ND		5.0		ug/L			10/27/21 18:07	4
Bromoform	ND		5.0		ug/L			10/27/21 18:07	4
Bromomethane	ND		5.0		ug/L			10/27/21 18:07	4
Carbon disulfide	ND		5.0		ug/L			10/27/21 18:07	4
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 18:07	4
Chlorobenzene	ND		5.0		ug/L			10/27/21 18:07	4
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 18:07	4
Chloroethane	**39**		5.0		ug/L			10/27/21 18:07	4
Chloroform	ND		5.0		ug/L			10/27/21 18:07	4
Chloromethane	ND		5.0		ug/L			10/27/21 18:07	4
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 18:07	4
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 18:07	4
Cyclohexane	ND		5.0		ug/L			10/27/21 18:07	4
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 18:07	4
Ethylbenzene	ND		5.0		ug/L			10/27/21 18:07	4
Isopropylbenzene	ND		5.0		ug/L			10/27/21 18:07	4
Methyl acetate	ND		5.2		ug/L			10/27/21 18:07	4
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 18:07	4
Methylcyclohexane	ND		5.0		ug/L			10/27/21 18:07	4
Methylene Chloride	ND		5.0		ug/L			10/27/21 18:07	4
o-Chlorotoluene	ND		5.0		ug/L			10/27/21 18:07	4
Styrene	ND		5.0		ug/L			10/27/21 18:07	4
Tetrachloroethene	ND		5.0		ug/L			10/27/21 18:07	4
Toluene	ND		5.0		ug/L			10/27/21 18:07	4
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 18:07	4
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 18:07	4
Trichloroethene	ND		5.0		ug/L			10/27/21 18:07	4
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 18:07	4
Vinyl chloride	ND		5.0		ug/L			10/27/21 18:07	4
Xylenes, Total	ND		15		ug/L			10/27/21 18:07	4

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: MW-9R
Lab Sample ID: 480-191354-8
Date Collected: 10/22/21 15:23
Matrix: Water
Date Received: 10/23/21 11:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		10/27/21 18:07	4
Toluene-d8 (Surr)	103		80 - 120		10/27/21 18:07	4
4-Bromofluorobenzene (Surr)	99		73 - 120		10/27/21 18:07	4
Dibromofluoromethane (Surr)	100		75 - 123		10/27/21 18:07	4

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-602169/7
Matrix: Water
Analysis Batch: 602169

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/27/21 10:50	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/27/21 10:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/27/21 10:50	1
1,1,2-Trichloroethane	ND		5.0		ug/L			10/27/21 10:50	1
1,1-Dichloroethane	ND		5.0		ug/L			10/27/21 10:50	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/27/21 10:50	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/27/21 10:50	1
1,2-Dibromoethane	ND		5.0		ug/L			10/27/21 10:50	1
1,2-Dichlorobenzene	ND		5.0		ug/L			10/27/21 10:50	1
1,2-Dichloroethane	ND		5.0		ug/L			10/27/21 10:50	1
1,2-Dichloropropane	ND		5.0		ug/L			10/27/21 10:50	1
1,3-Dichlorobenzene	ND		5.0		ug/L			10/27/21 10:50	1
1,4-Dichlorobenzene	ND		5.0		ug/L			10/27/21 10:50	1
2-Butanone (MEK)	ND		25		ug/L			10/27/21 10:50	1
2-Hexanone	ND		25		ug/L			10/27/21 10:50	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/27/21 10:50	1
Acetone	ND		25		ug/L			10/27/21 10:50	1
Benzene	ND		5.0		ug/L			10/27/21 10:50	1
Bromodichloromethane	ND		5.0		ug/L			10/27/21 10:50	1
Bromoform	ND		5.0		ug/L			10/27/21 10:50	1
Bromomethane	ND		5.0		ug/L			10/27/21 10:50	1
Carbon disulfide	ND		5.0		ug/L			10/27/21 10:50	1
Carbon tetrachloride	ND		5.0		ug/L			10/27/21 10:50	1
Chlorobenzene	ND		5.0		ug/L			10/27/21 10:50	1
Chlorodibromomethane	ND		5.0		ug/L			10/27/21 10:50	1
Chloroethane	ND		5.0		ug/L			10/27/21 10:50	1
Chloroform	ND		5.0		ug/L			10/27/21 10:50	1
Chloromethane	ND		5.0		ug/L			10/27/21 10:50	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 10:50	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 10:50	1
Cyclohexane	ND		5.0		ug/L			10/27/21 10:50	1
Dichlorofluoromethane	ND		5.0		ug/L			10/27/21 10:50	1
Ethylbenzene	ND		5.0		ug/L			10/27/21 10:50	1
Isopropylbenzene	ND		5.0		ug/L			10/27/21 10:50	1
Methyl acetate	ND		5.0		ug/L			10/27/21 10:50	1
Methyl tert-butyl ether	ND		5.0		ug/L			10/27/21 10:50	1
Methylcyclohexane	ND		5.0		ug/L			10/27/21 10:50	1
Methylene Chloride	ND		5.0		ug/L			10/27/21 10:50	1
o-Chlorotoluene	ND		5.0		ug/L			10/27/21 10:50	1
Styrene	ND		5.0		ug/L			10/27/21 10:50	1
Tetrachloroethene	ND		5.0		ug/L			10/27/21 10:50	1
Toluene	ND		5.0		ug/L			10/27/21 10:50	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/27/21 10:50	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/27/21 10:50	1
Trichloroethene	ND		5.0		ug/L			10/27/21 10:50	1
Trichlorofluoromethane	ND		5.0		ug/L			10/27/21 10:50	1
Vinyl chloride	ND		5.0		ug/L			10/27/21 10:50	1
Xylenes, Total	ND		15		ug/L			10/27/21 10:50	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-602169/7
Matrix: Water
Analysis Batch: 602169

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		10/27/21 10:50	1
Toluene-d8 (Surr)	106		80 - 120		10/27/21 10:50	1
4-Bromofluorobenzene (Surr)	100		73 - 120		10/27/21 10:50	1
Dibromofluoromethane (Surr)	97		75 - 123		10/27/21 10:50	1

Lab Sample ID: LCS 480-602169/5
Matrix: Water
Analysis Batch: 602169

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	23.5		ug/L		94	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.0		ug/L		104	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.8		ug/L		87	61 - 148
1,1,2-Trichloroethane	25.0	26.8		ug/L		107	76 - 122
1,1-Dichloroethane	25.0	25.8		ug/L		103	77 - 120
1,2,4-Trichlorobenzene	25.0	27.0		ug/L		108	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.1		ug/L		88	56 - 134
1,2-Dibromoethane	25.0	26.7		ug/L		107	77 - 120
1,2-Dichlorobenzene	25.0	26.9		ug/L		108	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	27.4		ug/L		110	76 - 120
1,3-Dichlorobenzene	25.0	27.1		ug/L		109	77 - 120
1,4-Dichlorobenzene	25.0	27.1		ug/L		108	80 - 120
2-Butanone (MEK)	125	127		ug/L		102	57 - 140
2-Hexanone	125	132		ug/L		105	65 - 127
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	71 - 125
Acetone	125	114		ug/L		91	56 - 142
Benzene	25.0	27.2		ug/L		109	71 - 124
Bromodichloromethane	25.0	26.3		ug/L		105	80 - 122
Bromoform	25.0	22.1		ug/L		89	61 - 132
Bromomethane	25.0	22.6		ug/L		91	55 - 144
Carbon disulfide	25.0	20.1		ug/L		80	59 - 134
Carbon tetrachloride	25.0	22.2		ug/L		89	72 - 134
Chlorobenzene	25.0	26.9		ug/L		108	80 - 120
Chlorodibromomethane	25.0	24.6		ug/L		98	75 - 125
Chloroethane	25.0	22.5		ug/L		90	69 - 136
Chloroform	25.0	23.4		ug/L		93	73 - 127
Chloromethane	25.0	26.0		ug/L		104	68 - 124
cis-1,2-Dichloroethene	25.0	25.4		ug/L		101	74 - 124
cis-1,3-Dichloropropene	25.0	27.9		ug/L		112	74 - 124
Cyclohexane	25.0	25.5		ug/L		102	59 - 135
Dichlorofluoromethane	25.0	20.7		ug/L		83	76 - 127
Ethylbenzene	25.0	26.6		ug/L		106	77 - 123
Isopropylbenzene	25.0	27.4		ug/L		110	77 - 122
Methyl acetate	50.0	41.4		ug/L		83	74 - 133
Methyl tert-butyl ether	25.0	25.0		ug/L		100	77 - 120
Methylcyclohexane	25.0	25.5		ug/L		102	68 - 134
Methylene Chloride	25.0	26.3		ug/L		105	75 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-602169/5
Matrix: Water
Analysis Batch: 602169

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Chlorotoluene	25.0	26.4		ug/L		106	76 - 121
Styrene	25.0	27.6		ug/L		110	80 - 120
Tetrachloroethene	25.0	26.7		ug/L		107	74 - 122
Toluene	25.0	27.6		ug/L		110	80 - 122
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	80 - 120
Trichloroethene	25.0	26.7		ug/L		107	74 - 123
Trichlorofluoromethane	25.0	18.1		ug/L		72	62 - 150
Vinyl chloride	25.0	24.7		ug/L		99	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 123*

Lab Sample ID: 480-191354-3 MS
Matrix: Water
Analysis Batch: 602169

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		1000	1110		ug/L		111	73 - 126
1,1,2,2-Tetrachloroethane	ND		1000	1110		ug/L		111	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1000	1150		ug/L		115	61 - 148
1,1,2-Trichloroethane	ND		1000	1130		ug/L		113	76 - 122
1,1-Dichloroethane	ND		1000	1150		ug/L		115	77 - 120
1,2,4-Trichlorobenzene	ND		1000	1090		ug/L		109	79 - 122
1,2-Dibromo-3-Chloropropane	ND		1000	975		ug/L		98	56 - 134
1,2-Dibromoethane	ND		1000	1140		ug/L		114	77 - 120
1,2-Dichlorobenzene	ND		1000	1150		ug/L		115	80 - 124
1,2-Dichloroethane	ND		1000	1060		ug/L		106	75 - 120
1,2-Dichloropropane	ND	F1	1000	1220	F1	ug/L		122	76 - 120
1,3-Dichlorobenzene	ND		1000	1150		ug/L		115	77 - 120
1,4-Dichlorobenzene	ND		1000	1150		ug/L		115	78 - 124
2-Butanone (MEK)	ND		5000	5660		ug/L		113	57 - 140
2-Hexanone	ND		5000	5770		ug/L		115	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		5000	5450		ug/L		109	71 - 125
Acetone	ND	F2	5000	3420		ug/L		68	56 - 142
Benzene	ND		1000	1230		ug/L		123	71 - 124
Bromodichloromethane	ND		1000	1130		ug/L		113	80 - 122
Bromoform	ND		1000	935		ug/L		94	61 - 132
Bromomethane	ND		1000	927		ug/L		93	55 - 144
Carbon disulfide	ND	F2	1000	945		ug/L		95	59 - 134
Carbon tetrachloride	ND		1000	1060		ug/L		106	72 - 134
Chlorobenzene	ND		1000	1180		ug/L		118	80 - 120
Chlorodibromomethane	ND		1000	1040		ug/L		104	75 - 125
Chloroethane	ND		1000	1040		ug/L		104	69 - 136
Chloroform	ND		1000	1040		ug/L		104	73 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-191354-3 MS
Matrix: Water
Analysis Batch: 602169

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	ND		1000	1170		ug/L		117	68 - 124
cis-1,2-Dichloroethene	ND		1000	1120		ug/L		112	74 - 124
cis-1,3-Dichloropropene	ND		1000	1160		ug/L		116	74 - 124
Cyclohexane	ND	F1	1000	1380	F1	ug/L		138	59 - 135
Dichlorofluoromethane	ND		1000	981		ug/L		98	76 - 127
Ethylbenzene	ND		1000	1200		ug/L		120	77 - 123
Isopropylbenzene	ND		1000	1190		ug/L		119	77 - 122
Methyl acetate	ND		2000	1980		ug/L		99	74 - 133
Methyl tert-butyl ether	ND		1000	1050		ug/L		105	77 - 120
Methylcyclohexane	ND		1000	1330		ug/L		133	68 - 134
Methylene Chloride	ND		1000	1200		ug/L		120	75 - 124
o-Chlorotoluene	1700	F1	1000	2210	F1	ug/L		47	76 - 121
Styrene	ND		1000	1190		ug/L		119	80 - 120
Tetrachloroethene	ND	F1	1000	1260	F1	ug/L		126	74 - 122
Toluene	ND	F1	1000	1230	F1	ug/L		123	80 - 122
trans-1,2-Dichloroethene	ND		1000	1160		ug/L		116	73 - 127
trans-1,3-Dichloropropene	ND		1000	1080		ug/L		108	80 - 120
Trichloroethene	ND		1000	1220		ug/L		122	74 - 123
Trichlorofluoromethane	ND		1000	972		ug/L		97	62 - 150
Vinyl chloride	ND		1000	1240		ug/L		124	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
Toluene-d8 (Surr)	*105*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 123*

Lab Sample ID: 480-191354-3 MSD
Matrix: Water
Analysis Batch: 602169

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		1000	1070		ug/L		107	73 - 126	4	15
1,1,2,2-Tetrachloroethane	ND		1000	1110		ug/L		111	76 - 120	1	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1000	1000		ug/L		100	61 - 148	14	20
1,1,2-Trichloroethane	ND		1000	1140		ug/L		114	76 - 122	1	15
1,1-Dichloroethane	ND		1000	1120		ug/L		112	77 - 120	3	20
1,2,4-Trichlorobenzene	ND		1000	1020		ug/L		102	79 - 122	7	20
1,2-Dibromo-3-Chloropropane	ND		1000	933		ug/L		93	56 - 134	4	15
1,2-Dibromoethane	ND		1000	1160		ug/L		116	77 - 120	1	15
1,2-Dichlorobenzene	ND		1000	1100		ug/L		110	80 - 124	5	20
1,2-Dichloroethane	ND		1000	1030		ug/L		103	75 - 120	2	20
1,2-Dichloropropane	ND	F1	1000	1200		ug/L		120	76 - 120	2	20
1,3-Dichlorobenzene	ND		1000	1130		ug/L		113	77 - 120	2	20
1,4-Dichlorobenzene	ND		1000	1130		ug/L		113	78 - 124	2	20
2-Butanone (MEK)	ND		5000	5730		ug/L		115	57 - 140	1	20
2-Hexanone	ND		5000	6000		ug/L		120	65 - 127	4	15
4-Methyl-2-pentanone (MIBK)	ND		5000	5590		ug/L		112	71 - 125	3	35

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-191354-3 MSD
Matrix: Water
Analysis Batch: 602169

Client Sample ID: MW-13R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	F2	5000	4700	F2	ug/L		94	56 - 142	31	15
Benzene	ND		1000	1190		ug/L		119	71 - 124	3	13
Bromodichloromethane	ND		1000	1120		ug/L		112	80 - 122	0	15
Bromoform	ND		1000	989		ug/L		99	61 - 132	6	15
Bromomethane	ND		1000	911		ug/L		91	55 - 144	2	15
Carbon disulfide	ND	F2	1000	1130	F2	ug/L		113	59 - 134	18	15
Carbon tetrachloride	ND		1000	1030		ug/L		103	72 - 134	4	15
Chlorobenzene	ND		1000	1180		ug/L		118	80 - 120	1	25
Chlorodibromomethane	ND		1000	1070		ug/L		107	75 - 125	2	15
Chloroethane	ND		1000	982		ug/L		98	69 - 136	6	15
Chloroform	ND		1000	991		ug/L		99	73 - 127	5	20
Chloromethane	ND		1000	1080		ug/L		108	68 - 124	8	15
cis-1,2-Dichloroethene	ND		1000	1100		ug/L		110	74 - 124	2	15
cis-1,3-Dichloropropene	ND		1000	1170		ug/L		117	74 - 124	1	15
Cyclohexane	ND	F1	1000	1310		ug/L		131	59 - 135	5	20
Dichlorofluoromethane	ND		1000	921		ug/L		92	76 - 127	6	20
Ethylbenzene	ND		1000	1190		ug/L		119	77 - 123	1	15
Isopropylbenzene	ND		1000	1150		ug/L		115	77 - 122	4	20
Methyl acetate	ND		2000	2010		ug/L		101	74 - 133	2	20
Methyl tert-butyl ether	ND		1000	1030		ug/L		103	77 - 120	2	37
Methylcyclohexane	ND		1000	1270		ug/L		127	68 - 134	5	20
Methylene Chloride	ND		1000	1120		ug/L		112	75 - 124	6	15
o-Chlorotoluene	1700	F1	1000	2160	F1	ug/L		42	76 - 121	2	20
Styrene	ND		1000	1200		ug/L		120	80 - 120	1	20
Tetrachloroethene	ND	F1	1000	1230	F1	ug/L		123	74 - 122	2	20
Toluene	ND	F1	1000	1220		ug/L		122	80 - 122	1	15
trans-1,2-Dichloroethene	ND		1000	1080		ug/L		108	73 - 127	7	20
trans-1,3-Dichloropropene	ND		1000	1110		ug/L		111	80 - 120	2	15
Trichloroethene	ND		1000	1180		ug/L		118	74 - 123	3	16
Trichlorofluoromethane	ND		1000	955		ug/L		95	62 - 150	2	20
Vinyl chloride	ND		1000	1120		ug/L		112	65 - 133	10	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
Toluene-d8 (Surr)	*107*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*

Lab Sample ID: MB 480-602367/8
Matrix: Water
Analysis Batch: 602367

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/L			10/28/21 12:18	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			10/28/21 12:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/L			10/28/21 12:18	1
1,1,2-Trichloroethane	ND		5.0		ug/L			10/28/21 12:18	1
1,1-Dichloroethane	ND		5.0		ug/L			10/28/21 12:18	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-602367/8
Matrix: Water
Analysis Batch: 602367

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		5.0		ug/L			10/28/21 12:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			10/28/21 12:18	1
1,2-Dibromoethane	ND		5.0		ug/L			10/28/21 12:18	1
1,2-Dichlorobenzene	ND		5.0		ug/L			10/28/21 12:18	1
1,2-Dichloroethane	ND		5.0		ug/L			10/28/21 12:18	1
1,2-Dichloropropane	ND		5.0		ug/L			10/28/21 12:18	1
1,3-Dichlorobenzene	ND		5.0		ug/L			10/28/21 12:18	1
1,4-Dichlorobenzene	ND		5.0		ug/L			10/28/21 12:18	1
2-Butanone (MEK)	ND		25		ug/L			10/28/21 12:18	1
2-Hexanone	ND		25		ug/L			10/28/21 12:18	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/L			10/28/21 12:18	1
Acetone	ND		25		ug/L			10/28/21 12:18	1
Benzene	ND		5.0		ug/L			10/28/21 12:18	1
Bromodichloromethane	ND		5.0		ug/L			10/28/21 12:18	1
Bromoform	ND		5.0		ug/L			10/28/21 12:18	1
Bromomethane	ND		5.0		ug/L			10/28/21 12:18	1
Carbon disulfide	ND		5.0		ug/L			10/28/21 12:18	1
Carbon tetrachloride	ND		5.0		ug/L			10/28/21 12:18	1
Chlorobenzene	ND		5.0		ug/L			10/28/21 12:18	1
Chlorodibromomethane	ND		5.0		ug/L			10/28/21 12:18	1
Chloroethane	ND		5.0		ug/L			10/28/21 12:18	1
Chloroform	ND		5.0		ug/L			10/28/21 12:18	1
Chloromethane	ND		5.0		ug/L			10/28/21 12:18	1
cis-1,2-Dichloroethene	ND		5.0		ug/L			10/28/21 12:18	1
cis-1,3-Dichloropropene	ND		5.0		ug/L			10/28/21 12:18	1
Cyclohexane	ND		5.0		ug/L			10/28/21 12:18	1
Dichlorofluoromethane	ND		5.0		ug/L			10/28/21 12:18	1
Ethylbenzene	ND		5.0		ug/L			10/28/21 12:18	1
Isopropylbenzene	ND		5.0		ug/L			10/28/21 12:18	1
Methyl acetate	ND		5.0		ug/L			10/28/21 12:18	1
Methyl tert-butyl ether	ND		5.0		ug/L			10/28/21 12:18	1
Methylcyclohexane	ND		5.0		ug/L			10/28/21 12:18	1
Methylene Chloride	ND		5.0		ug/L			10/28/21 12:18	1
o-Chlorotoluene	ND		5.0		ug/L			10/28/21 12:18	1
Styrene	ND		5.0		ug/L			10/28/21 12:18	1
Tetrachloroethene	ND		5.0		ug/L			10/28/21 12:18	1
Toluene	ND		5.0		ug/L			10/28/21 12:18	1
trans-1,2-Dichloroethene	ND		5.0		ug/L			10/28/21 12:18	1
trans-1,3-Dichloropropene	ND		5.0		ug/L			10/28/21 12:18	1
Trichloroethene	ND		5.0		ug/L			10/28/21 12:18	1
Trichlorofluoromethane	ND		5.0		ug/L			10/28/21 12:18	1
Vinyl chloride	ND		5.0		ug/L			10/28/21 12:18	1
Xylenes, Total	ND		15		ug/L			10/28/21 12:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*10/28/21 12:18*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*10/28/21 12:18*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*10/28/21 12:18*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-602367/8
Matrix: Water
Analysis Batch: 602367

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		75 - 123		10/28/21 12:18	1

Lab Sample ID: LCS 480-602367/6
Matrix: Water
Analysis Batch: 602367

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.5		ug/L		102	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.7		ug/L		91	61 - 148
1,1,2-Trichloroethane	25.0	27.9		ug/L		112	76 - 122
1,1-Dichloroethane	25.0	27.5		ug/L		110	77 - 120
1,2,4-Trichlorobenzene	25.0	26.5		ug/L		106	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	21.5		ug/L		86	56 - 134
1,2-Dibromoethane	25.0	27.6		ug/L		110	77 - 120
1,2-Dichlorobenzene	25.0	26.8		ug/L		107	80 - 124
1,2-Dichloroethane	25.0	24.8		ug/L		99	75 - 120
1,2-Dichloropropane	25.0	29.9		ug/L		120	76 - 120
1,3-Dichlorobenzene	25.0	28.1		ug/L		112	77 - 120
1,4-Dichlorobenzene	25.0	27.3		ug/L		109	80 - 120
2-Butanone (MEK)	125	134		ug/L		107	57 - 140
2-Hexanone	125	133		ug/L		107	65 - 127
4-Methyl-2-pentanone (MIBK)	125	124		ug/L		100	71 - 125
Acetone	125	109		ug/L		87	56 - 142
Benzene	25.0	29.2		ug/L		117	71 - 124
Bromodichloromethane	25.0	27.4		ug/L		110	80 - 122
Bromoform	25.0	23.8		ug/L		95	61 - 132
Bromomethane	25.0	24.1		ug/L		96	55 - 144
Carbon disulfide	25.0	17.1		ug/L		68	59 - 134
Carbon tetrachloride	25.0	24.4		ug/L		97	72 - 134
Chlorobenzene	25.0	29.0		ug/L		116	80 - 120
Chlorodibromomethane	25.0	26.2		ug/L		105	75 - 125
Chloroethane	25.0	24.3		ug/L		97	69 - 136
Chloroform	25.0	24.6		ug/L		98	73 - 127
Chloromethane	25.0	28.7		ug/L		115	68 - 124
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	74 - 124
cis-1,3-Dichloropropene	25.0	29.7		ug/L		119	74 - 124
Cyclohexane	25.0	28.5		ug/L		114	59 - 135
Dichlorofluoromethane	25.0	20.3		ug/L		81	76 - 127
Ethylbenzene	25.0	28.9		ug/L		115	77 - 123
Isopropylbenzene	25.0	27.8		ug/L		111	77 - 122
Methyl acetate	50.0	42.2		ug/L		84	74 - 133
Methyl tert-butyl ether	25.0	25.6		ug/L		102	77 - 120
Methylcyclohexane	25.0	27.7		ug/L		111	68 - 134
Methylene Chloride	25.0	28.1		ug/L		113	75 - 124
o-Chlorotoluene	25.0	26.9		ug/L		107	76 - 121
Styrene	25.0	28.9		ug/L		116	80 - 120
Tetrachloroethene	25.0	29.8		ug/L		119	74 - 122

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-602367/6
Matrix: Water
Analysis Batch: 602367

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	25.0	29.8		ug/L		119	80 - 122
trans-1,2-Dichloroethene	25.0	27.2		ug/L		109	73 - 127
trans-1,3-Dichloropropene	25.0	28.1		ug/L		112	80 - 120
Trichloroethene	25.0	28.7		ug/L		115	74 - 123
Trichlorofluoromethane	25.0	19.6		ug/L		79	62 - 150
Vinyl chloride	25.0	27.3		ug/L		109	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
Toluene-d8 (Surr)	*108*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

QC Association Summary

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

GC/MS VOA

Analysis Batch: 602169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-191354-1	Trip Blank	Total/NA	Water	8260C	
480-191354-2	DUP	Total/NA	Water	8260C	
480-191354-3	MW-13R	Total/NA	Water	8260C	
480-191354-4	MW-15R	Total/NA	Water	8260C	
480-191354-6	MW-7R	Total/NA	Water	8260C	
480-191354-7	MW-8R	Total/NA	Water	8260C	
480-191354-8	MW-9R	Total/NA	Water	8260C	
MB 480-602169/7	Method Blank	Total/NA	Water	8260C	
LCS 480-602169/5	Lab Control Sample	Total/NA	Water	8260C	
480-191354-3 MS	MW-13R	Total/NA	Water	8260C	
480-191354-3 MSD	MW-13R	Total/NA	Water	8260C	

Analysis Batch: 602367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-191354-5	MW-3S	Total/NA	Water	8260C	
MB 480-602367/8	Method Blank	Total/NA	Water	8260C	
LCS 480-602367/6	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: Trip Blank
Lab Sample ID: 480-191354-1
Date Collected: 10/22/21 00:00
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	602169	10/27/21 15:26	LCH	TAL BUF

Client Sample ID: DUP
Lab Sample ID: 480-191354-2
Date Collected: 10/22/21 00:00
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	602169	10/27/21 15:49	LCH	TAL BUF

Client Sample ID: MW-13R
Lab Sample ID: 480-191354-3
Date Collected: 10/22/21 13:47
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		40	602169	10/27/21 16:12	LCH	TAL BUF

Client Sample ID: MW-15R
Lab Sample ID: 480-191354-4
Date Collected: 10/22/21 13:08
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	602169	10/27/21 16:35	LCH	TAL BUF

Client Sample ID: MW-3S
Lab Sample ID: 480-191354-5
Date Collected: 10/22/21 16:08
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		500	602367	10/28/21 12:55	LCH	TAL BUF

Client Sample ID: MW-7R
Lab Sample ID: 480-191354-6
Date Collected: 10/22/21 16:39
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	602169	10/27/21 17:21	LCH	TAL BUF

Client Sample ID: MW-8R
Lab Sample ID: 480-191354-7
Date Collected: 10/22/21 14:32
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	602169	10/27/21 17:44	LCH	TAL BUF

Lab Chronicle

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Client Sample ID: MW-9R
Lab Sample ID: 480-191354-8
Date Collected: 10/22/21 15:23
Matrix: Water
Date Received: 10/23/21 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	602169	10/27/21 18:07	LCH	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-22

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

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	Dichlorofluoromethane

Method Summary

Client: Waste Management
Job ID: 480-191354-1
Project/Site: ChemTrol Site - Annual Groundwater

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Waste Management
Project/Site: ChemTrol Site - Annual Groundwater

Job ID: 480-191354-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-191354-1	Trip Blank	Water	10/22/21 00:00	10/23/21 11:30
480-191354-2	DUP	Water	10/22/21 00:00	10/23/21 11:30
480-191354-3	MW-13R	Water	10/22/21 13:47	10/23/21 11:30
480-191354-4	MW-15R	Water	10/22/21 13:08	10/23/21 11:30
480-191354-5	MW-3S	Water	10/22/21 16:08	10/23/21 11:30
480-191354-6	MW-7R	Water	10/22/21 16:39	10/23/21 11:30
480-191354-7	MW-8R	Water	10/22/21 14:32	10/23/21 11:30
480-191354-8	MW-9R	Water	10/22/21 15:23	10/23/21 11:30

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Sean P. Connelly	Lab PM: VanDette, Ryan T	Carrier Tracking No(s):	COC No: 480-163871-30197.1
Client Contact: Chad Moose	Phone: (716)393 0870	E-Mail: Ryan.VanDette@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Waste Management	PWSID:			Job #:
Address: Tullytown Landfill 444 Oxford Valley Road	Due Date Requested:			
City: Morrisville	TAT Requested (days): STD			
State, Zip: PA, 19067	Compliance Project: Δ Yes Δ No			
Phone: 215-269-2114(Tel) 215-699-8315(Fax)	PO #: 10132351			
Email: cmoose@wm.com	WO #:			
Project Name: ChemTrol Site/NY22 Event Desc: ChemTrol Annual Groundwate	Project #: 48002447			
Site: New York	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL M - Hexane
B - NaOH N - None
C - Zn Acetate

480-191354 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - Volatiles	Total Number of co	Special Instructions/Note:
			Preservation Code:				A		
Trip Blank	10/22/21	—	G	Water	N	N	1		
DUP		—	G	Water	N	N	3		
MW-13R		1347	G	Water	N	N	3		
MW-15R		1308	G	Water	N	N	3		
MW-3S		1608	G	Water	N	N	3		
MW-7R		1639	G	Water	N	N	3		
MW-8R		1432	G	Water	N	N	3		
MW-9R	10/22/21	1523	G	Water	N	N	3		

Other:

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/23/21 @ 1130	Tacon		10/23/21 @ 1130	TAB
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Cooler Temperature(s) °C and Other Remarks: #1 3.3,

Ver: 06/08/2021

ATTACHMENT C

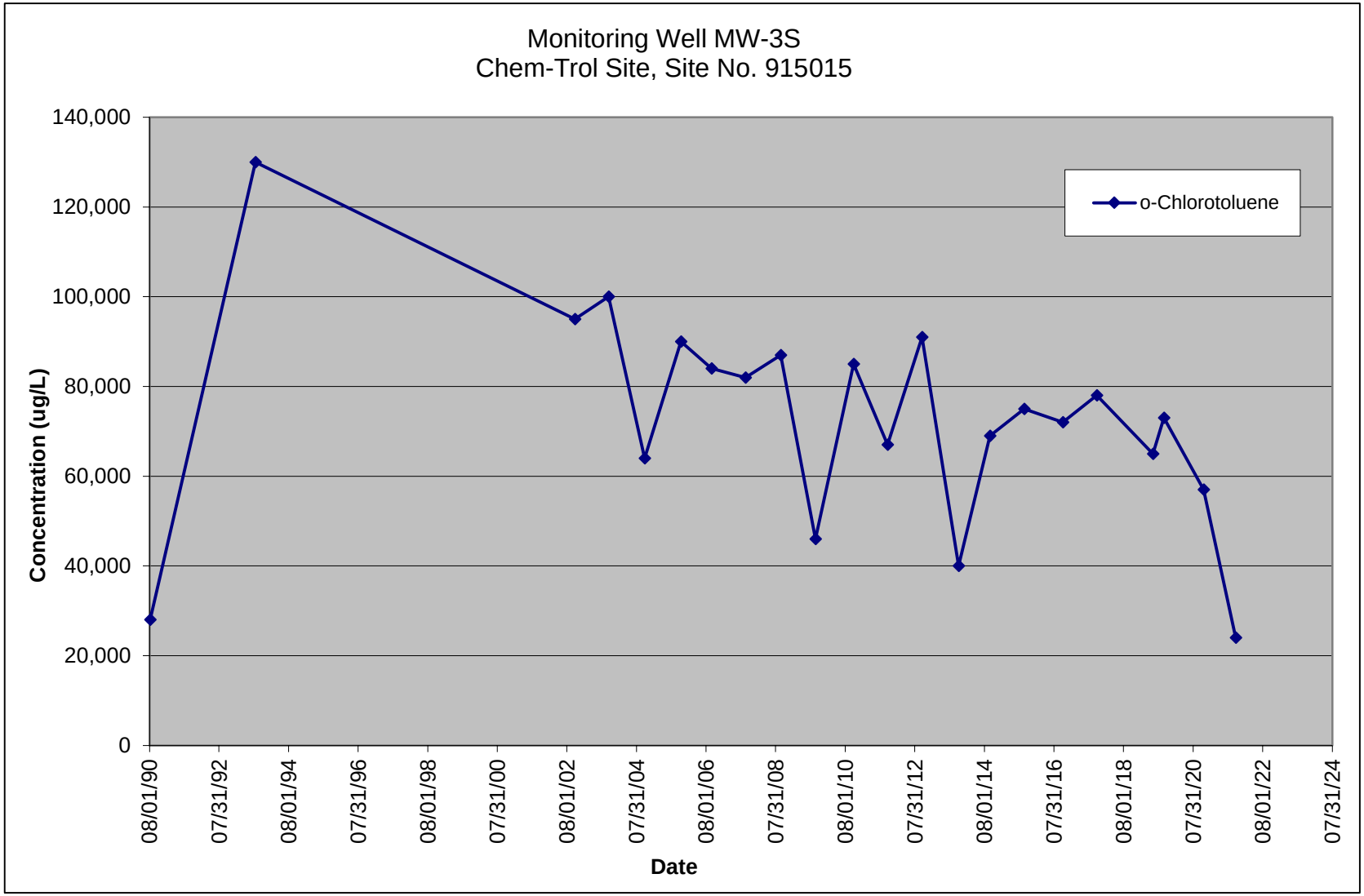
Historical Data Trend Plots

CHEM-TROL SITE

Groundwater Analytical Data for Well MW-3S (ug/L)

Date	o-Chlorotoluene
08/09/90	28,000
08/19/93	130,000
10/23/02	95,000
10/13/03	100,000
10/26/04	64,000
11/11/05	90,000
09/27/06	84,000
09/20/07	82,000
09/24/08	87,000
09/22/09	46,000
10/27/10	85,000
10/20/11	67,000
10/17/12	91,000
11/05/13	40,000
09/29/14	69,000
09/23/15	75,000
11/02/16	72,000
10/25/17	78,000
06/07/19	65,000
09/30/19	73,000
11/20/20	57,000
10/22/21	24,000

Note: Data not collected 10/30/18 due to the well being dry; as a result, 2018 annual sample collected 06/07/19.

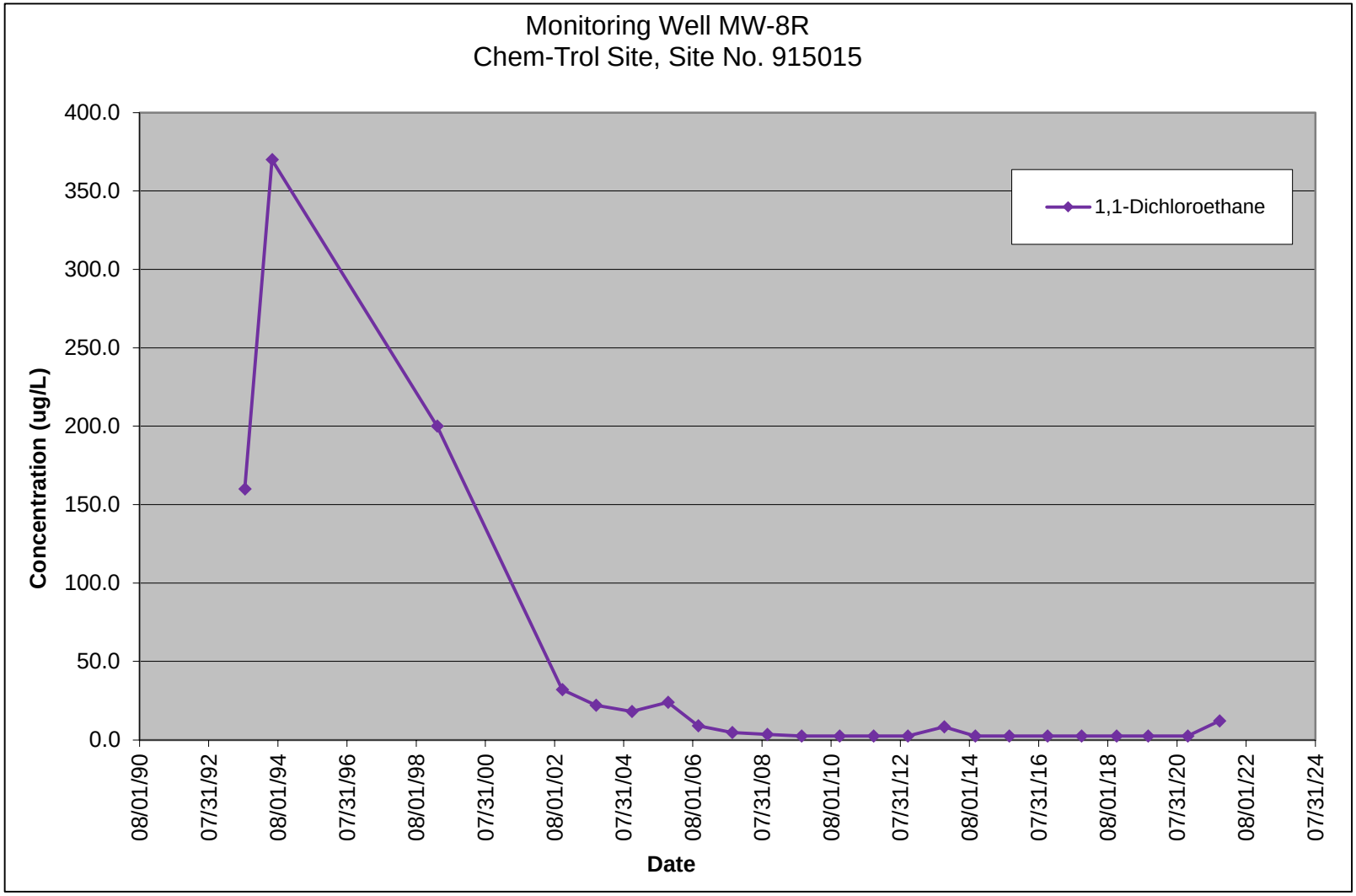

Monitoring Well MW-3S
Chem-Trol Site, Site No. 915015
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Concentration (ug/L)
o-Chlorotoluene
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
07/31/24
Date

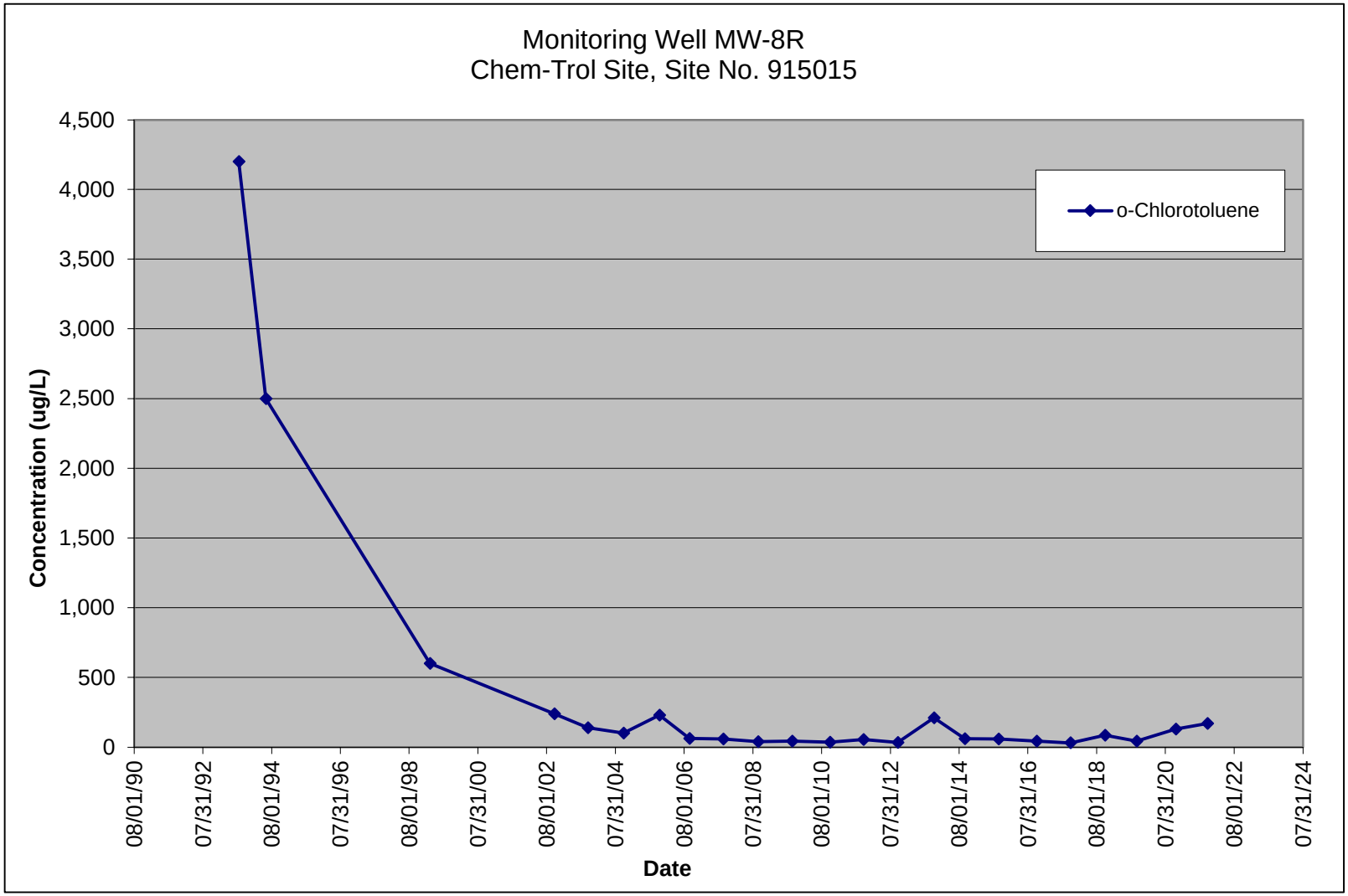
CHEM-TROL SITE

Groundwater Analytical Data for Well MW-8R (ug/L)

Date	1,1-Dichloroethane	o-Chlorotoluene
08/16/93	160.0	4,200
06/01/94	370.0	2,500
03/10/99	200.0	600.0
10/22/02	32.0	240.0
10/13/03	22.0	140.0
10/26/04	18.0	100.0
11/11/05	24.0	230.0
09/27/06	8.9	63.0
09/20/07	4.7	58.0
09/24/08	3.4	40.0
09/22/09	2.5	43.0
10/27/10	2.5	35.0
10/20/11	2.5	55.0
10/17/12	2.5	34.0
11/05/13	8.2	210.0
09/29/14	2.5	61.0
09/23/15	2.5	59.0
11/02/16	2.5	44.0
10/25/17	2.5	31.0
10/30/18	2.5	85.0
09/30/19	2.5	44.0
11/20/20	2.5	130.0
10/22/21	12.0	170.0

Value is equal to 1/2 the detection limit.


Monitoring Well MW-8R
Chem-Trol Site, Site No. 915015
400.0
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
Concentration (ug/L)
1,1-Dichloroethane
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
07/31/24
Date


Monitoring Well MW-8R
Chem-Trol Site, Site No. 915015
Concentration (ug/L)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
o-Chlorotoluene
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
07/31/24
Date

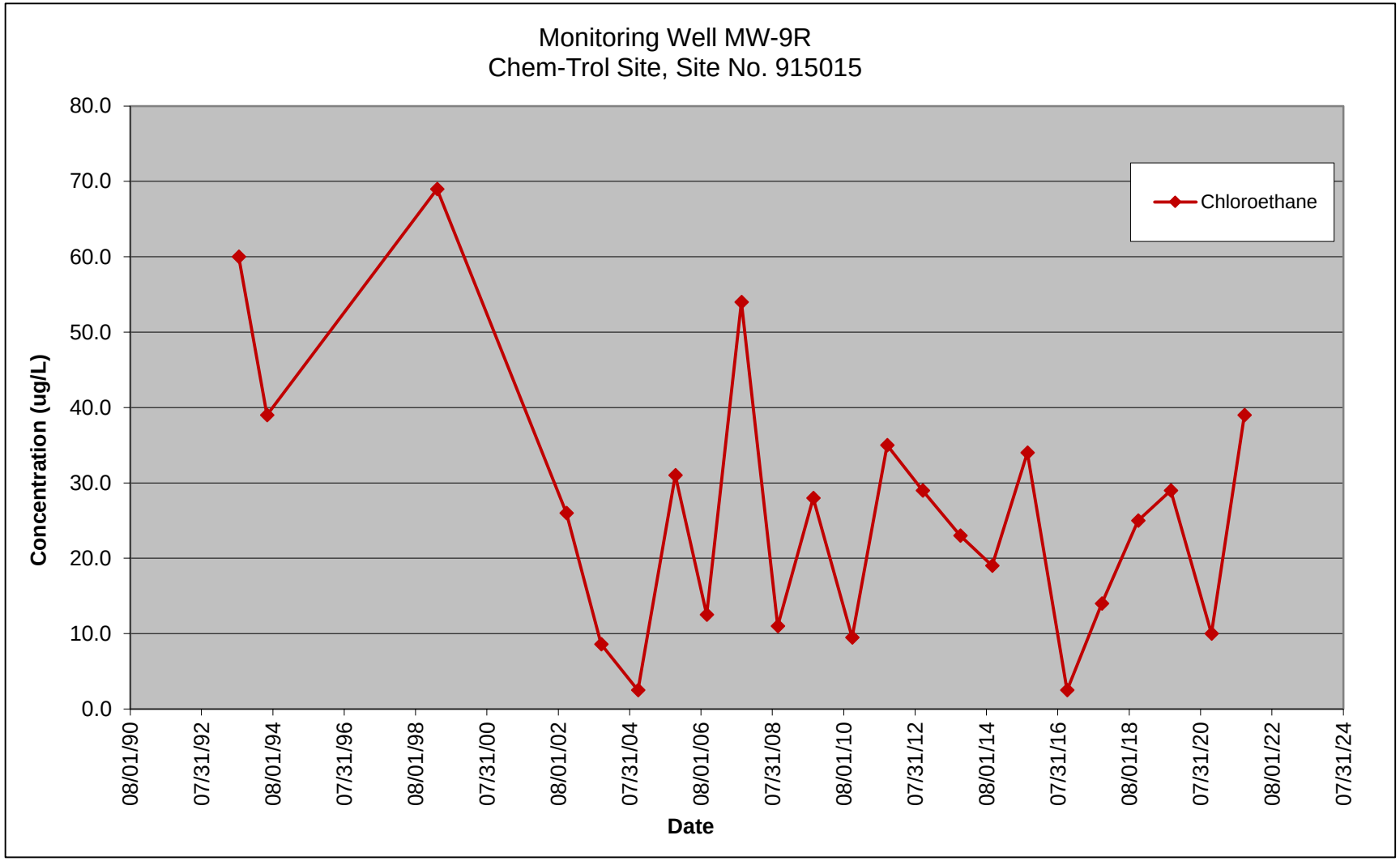
CHEM-TROL SITE

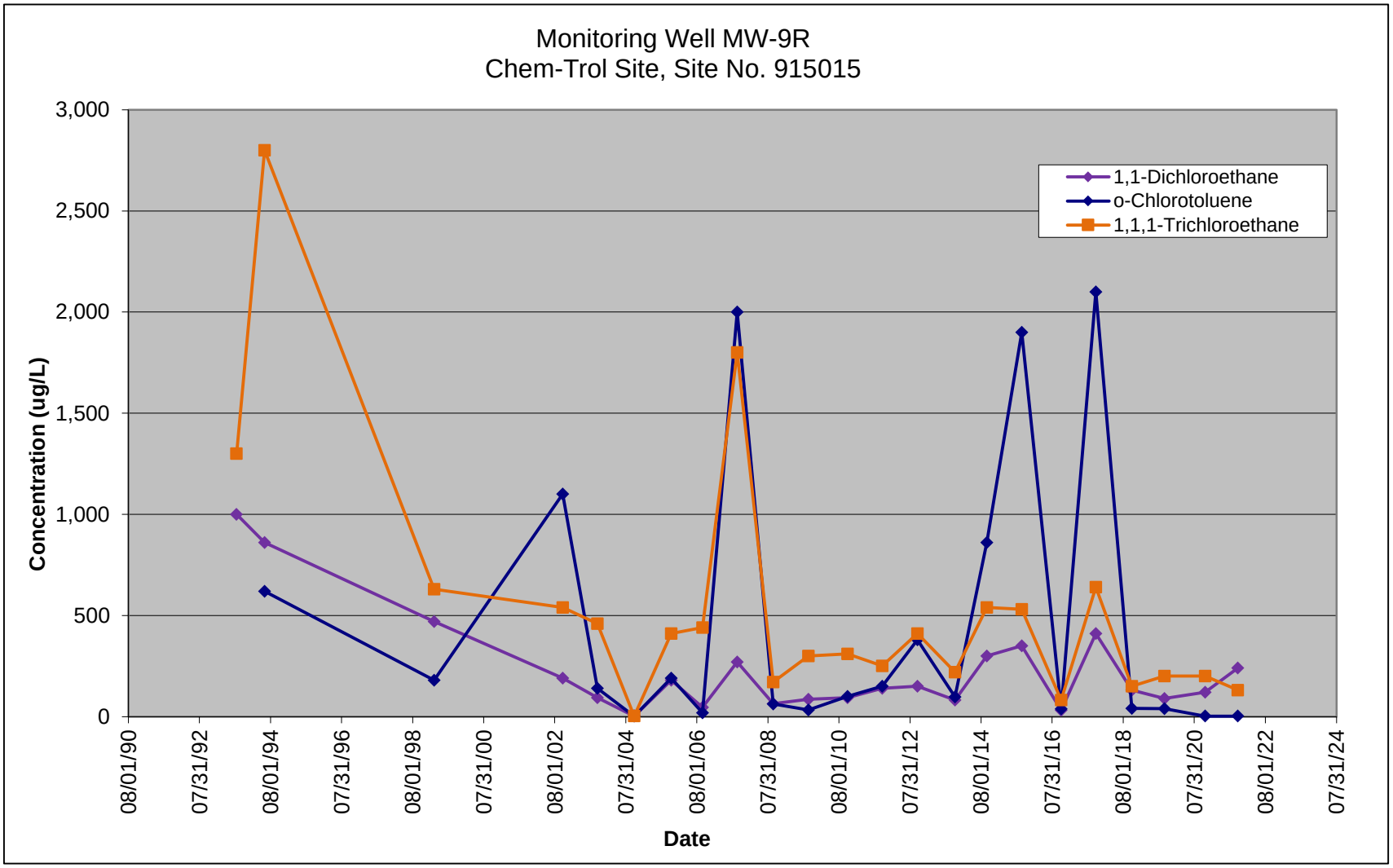
Groundwater Analytical Data for Well MW-9R (ug/L)

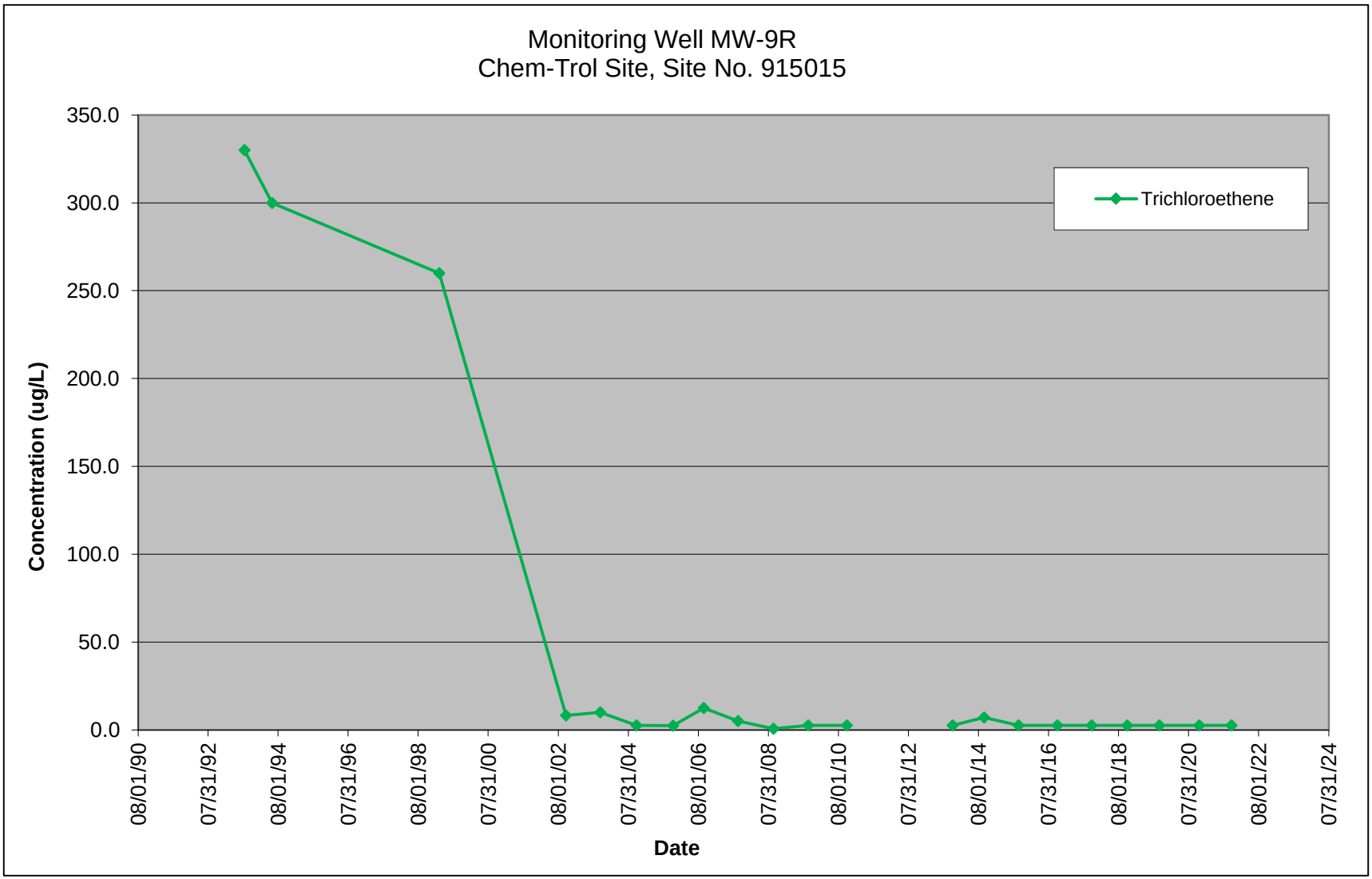
Date	Chloroethane	1,1-Dichloroethane	o-Chlorotoluene	1,1,1-Trichloroethane	Trichloroethene
08/16/93	60.0	1,000		1,300	330.0
06/01/94	39.0	860.0	620.0	2,800	300.0
03/10/99	69.0	470.0	180.0	630.0	260.0
10/22/02	26.0	190.0	1,100	540.0	8.2
10/13/03	8.6	93.0	140.0	460.0	10.0
10/26/04	2.5	2.5	2.5	2.5	2.5
11/11/05	31.0	180.0	190.0	410.0	2.4
09/27/06	12.5	46.0	18.0	440.0	12.5
09/20/07	54.0	270.0	2,000	1,800	5.1
09/24/08	11.0	64.0	62.0	170.0	0.68
09/22/09	28.0	85.0	33.0	300.0	2.5
10/27/10	9.5	93.0	100.0	310.0	2.5
10/20/11	35.0	140.0	150.0	250.0	
10/17/12	29.0	150.0	380.0	410.0	
11/05/13	23.0	82.0	97.0	220.0	2.5
09/29/14	19.0	300.0	860.0	540.0	7.1
09/23/15	34.0	350.0	1900.0	530.0	2.5
11/02/16	2.5	31.0	38.0	82.0	2.5
10/25/17	14.0	410.0	2100.0	640.0	2.5
10/30/18	25.0	130.0	40.0	150.0	2.5
09/30/19	29.0	89.0	39.0	200.0	2.5
11/20/20	10.0	120.0	2.5	200.0	2.5
10/22/21	39.0	240.0	2.5	130.0	2.5

Data not included due to 1/2 the detection limit being higher than the previous 3 years of positive results.

Value is equal to 1/2 the detection limit.


Monitoring Well MW-9R
Chem-Trol Site, Site No. 915015
Concentration (ug/L)
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
07/31/24
Date
Chloroethane


Monitoring Well MW-9R
Chem-Trol Site, Site No. 915015
Concentration (ug/L)
3,000
2,500
2,000
1,500
1,000
500
0
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
07/31/24
Date
1,1-Dichloroethane
o-Chlorotoluene
1,1,1-Trichloroethane

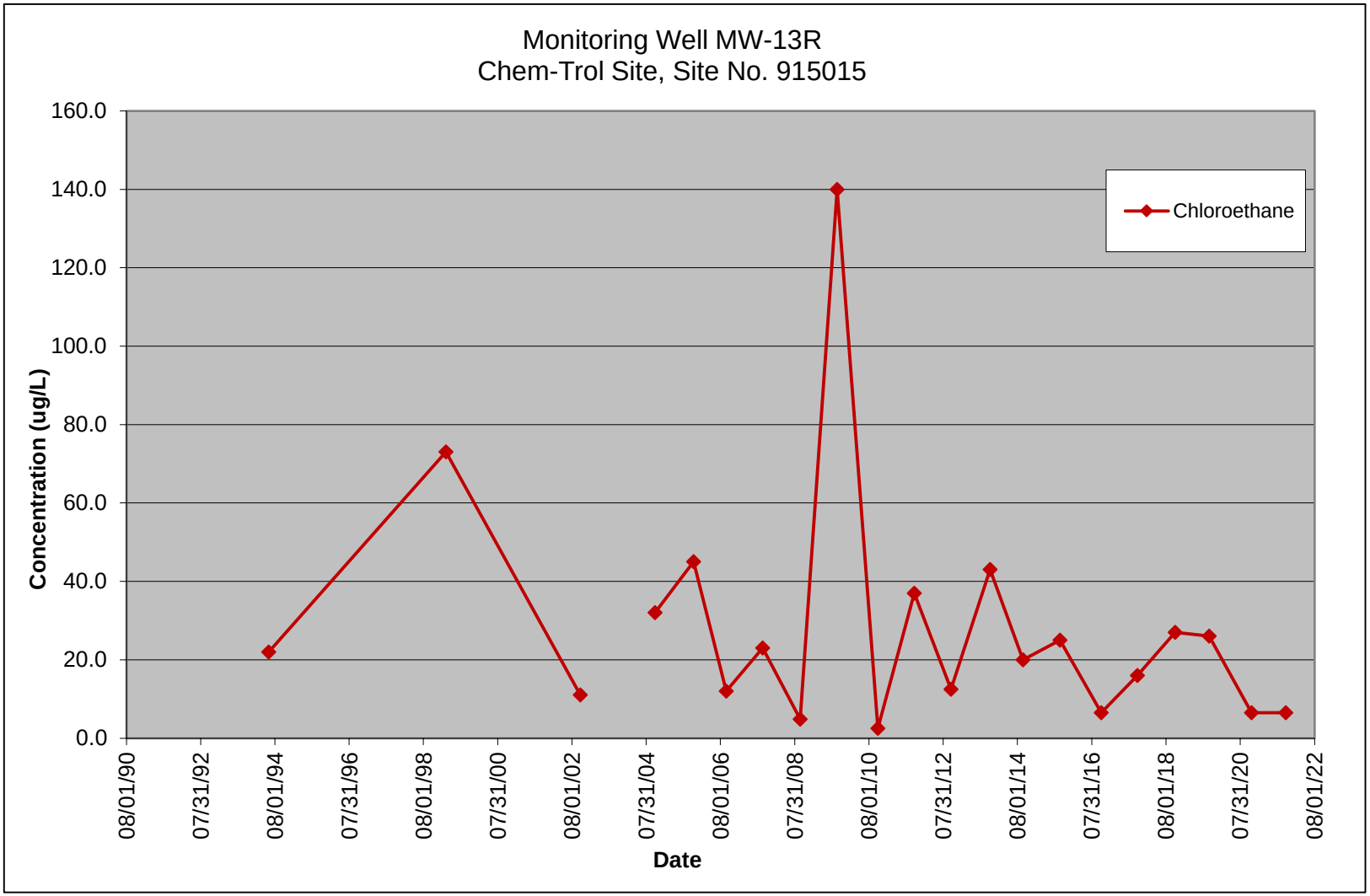

Monitoring Well MW-9R
Chem-Trol Site, Site No. 915015
Concentration (ug/L)
350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
Trichloroethene
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
07/31/24
Date

CHEM-TROL SITE

Groundwater Analytical Data for Well MW-13R (ug/L)

Date	Chloroethane	1,1-Dichloroethane	1,1,1-Trichloroethane	o-Chlorotoluene
05/31/94	22.0	6.0	280.0	1,700
03/11/99	73.0	240.0	220.0	
10/22/02	11.0	190.0	79.0	4,200
10/13/03		110.0		4,500
10/26/04	32.0	39.0	8.2	1,900
11/11/05	45.0	270.0	76.0	4,900
09/27/06	12.0	8.6	2.5	680.0
09/20/07	23.0	5.6	20.0	440.0
09/24/08	4.8	10.0	10.0	250.0
09/22/09	140.0	17.0	2.5	600.0
10/27/10	2.5	2.5	2.5	210.0
10/20/11	37.0			820.0
10/17/12	12.5	12.5		410.0
11/05/13	43.0	67.0	17.0	2,500
09/24/14	20.0	24.0	2.5	2,000
09/23/15	25.0	22.0	16.5	3200
11/02/16	6.5	2.5	2.5	1200
10/25/17	16.0	7.5	16.5	2000
10/30/18	27.0	27.0	2.5	2300
09/30/19	26.0	7.5	16.5	2500
11/20/20	6.5	7.5	16.5	1100
10/22/21	6.5	7.5	16.5	1700

Data not included due to high detection limits for ND values: (1) 2003 - 200 ug/L except for Total Xylenes, which was 600 ug/L.
Data not included due to 1/2 the detection limit being higher than the previous 3 years of positive results.
Value is equal to 1/2 the detection limit.


Monitoring Well MW-13R
Chem-Trol Site, Site No. 915015
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Concentration (ug/L)
Chloroethane
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
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07/31/12
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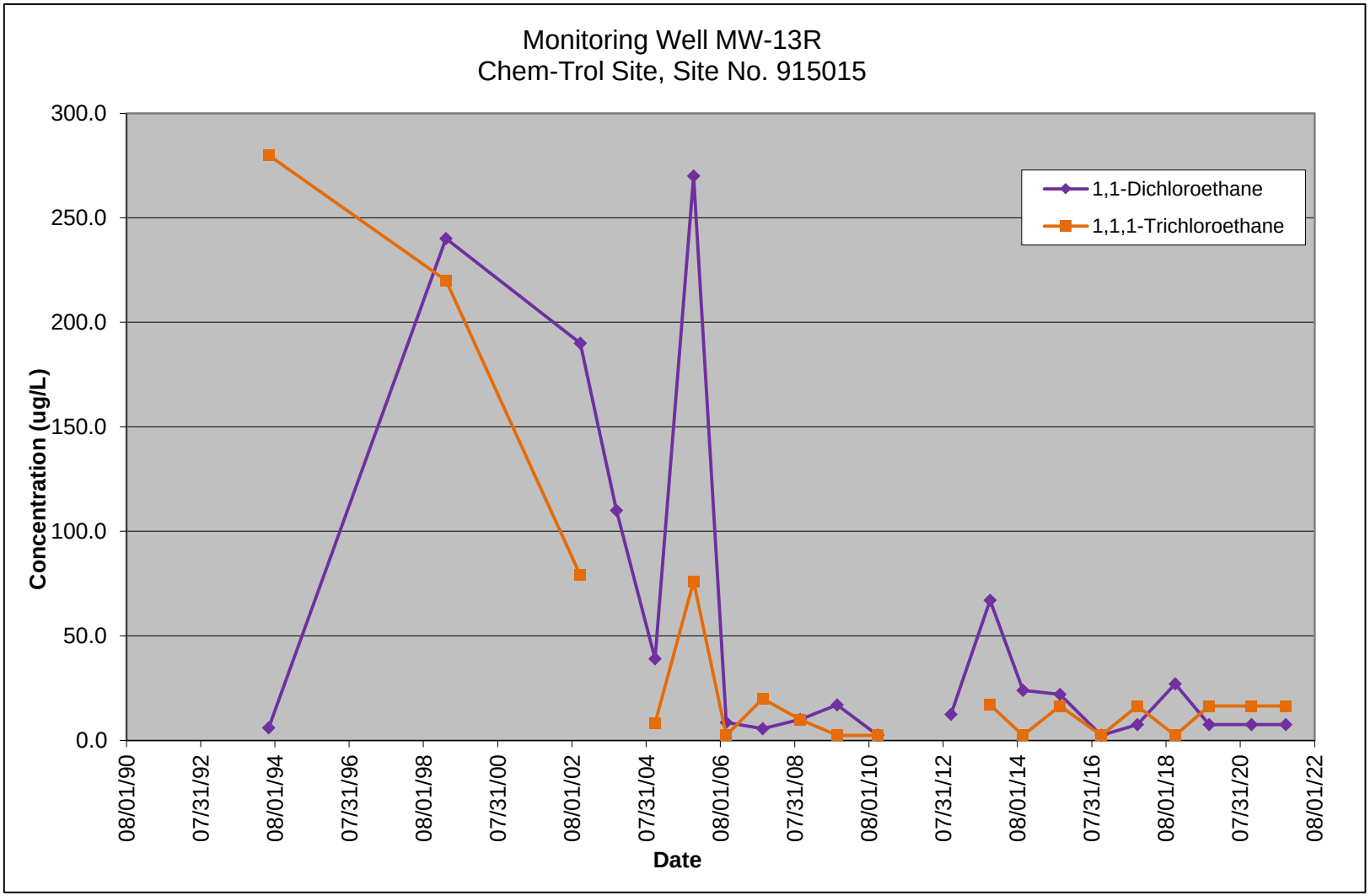
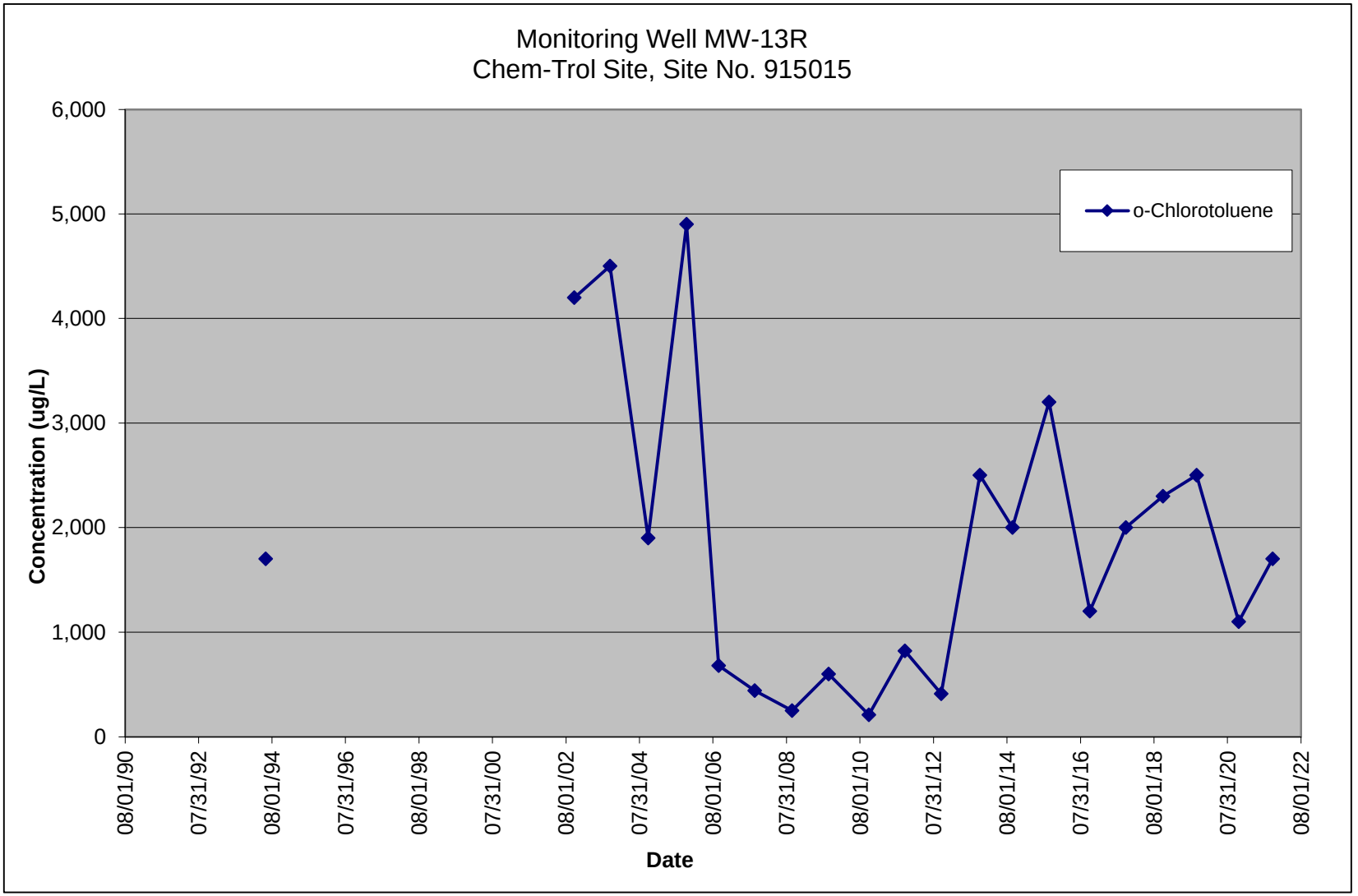
07/31/16
08/01/18
07/31/20
08/01/22
Date


Monitoring Well MW-13R
Chem-Trol Site, Site No. 915015
300.0
250.0
200.0
150.0
100.0
50.0
0.0
Concentration (ug/L)
1,1-Dichloroethane
1,1,1-Trichloroethane
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
Date


Monitoring Well MW-13R
Chem-Trol Site, Site No. 915015
6,000
5,000
4,000
3,000
2,000
1,000
0
Concentration (ug/L)
o-Chlorotoluene
08/01/90
07/31/92
08/01/94
07/31/96
08/01/98
07/31/00
08/01/02
07/31/04
08/01/06
07/31/08
08/01/10
07/31/12
08/01/14
07/31/16
08/01/18
07/31/20
08/01/22
Date